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MEDICAL PROGRESS.*

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It is true of medicine, as it is of law, that it is engaged in attempting to remove the reasons for its own existence. As the desire for justice and equity grows, and the social conscience gains in strength, the law is freed to take up new and larger questions. So when we come to the domain of medicine, there opens for us a new order of things with our progress in the control and elimination of disease.

Back of all the diversified interests which engage the attention of a medical society such as this, there is one supreme object, the elevation of the medical profession to a higher scientific standard for increased public usefulness. Analysis will show that this object concerns the public more than it does the profession of medicine. The more highly developed the attainments of the medical profession, the more benefits it confers upon the public through the increased efficiency of its individual members. In this way the interests of the profession and of the laity are interwoven.

From the days of Hippocrates to the present, the medical profession has recognized its duty and responsibility to the public, and in the fullest sense has endeavored to meet them. At first the practitioner rendered service by his own hands to the sufferer, combining the functions of physician, surgeon, nurse and pharmacist; then, with the development of knowledge, came a separation of these fields of work; and lastly we have arrived at the cultivation and intensification of the possibilities in each field; but always the one animating object is service.

For the physician who is true to the ideals and ethics of his profession there is always the subordination of his own comfort, of his opportunities for wealth, the enjoyment of leisure, home life and public recognition to the need of serving mankind; and in instances without number life itself has been sacrificed in order to extend and broaden knowledge and make it possible that many others might protect and prolong their lives.

No practitioner may consistently think or say these things of himself; but if they form a part of the noble traditions of a profession to which he has been called: if they are a part and parcel of the characters of his brothers in that profession, then he may recognize and proclaim them, for they are not only his, but a portion of the heritage of all mankind.

We, the practitioners of the healing art, are the heirs of a noble past. The influence of the masters of medicine still survives, their spirits live. Nothing is more prominent in the lives of the greatest of our predecessors than the influence of high ideals of human service. From the days of the grand old pagan whom we call the Father of Medicine, and whose recognition of the ethical and spiritual phase of his profession

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is so clearly seen in the oath which he laid upon his followers, to the great authorities of the present day, we can trace the power of the one controlling idea of moral obligation to the race.

"Happy is he," said the illustrous Pasteur, "who carries with him a God—an ideal of Beauty, and obeys him; an ideal of art, an ideal of science." And if we are to have strength for our work, courage and hope to cheer us for our long conflict with all various forms of disease, we must bear in mind the supreme importance of high ideals. Medical progress is rapid and its applications are numerous and beneficent. To be able to practice a profession in which the pursuit of truth constantly modifies his utilitarian and materialistic activities is the physician's supreme reward. The spirit of medicine is scientific and open-minded toward truth, from whatever source it may come.

Phenomenal advances in the physical and biological sciences have revolutionized medicine, and have given it a definiteness and breadth of scope which are a monument to organized effort. The advance of medical science during the past two hundred years has exceeded the progress made in the preceding thousand years, due primarily to four fundamental discoveries—the circulation of the blood, the existence of bacteria, antiseptic surgery, and the germ theory of disease.

Harvey's discovery of the circulation of the blood, is the foundation of our medical science of today. Previous to his time, there was no definite conception of the manner of distribution of the blood. Harvey scientifically proved that the heart activity is expellant and that the circulation of the blood throughout the body is continuous. Harvey's discovery in 1628 was supplemented by that of Malpighi of Bologna, who in 1661 detected the movements of the red blood corpuscles, and by that of Leeuwenhoek of Delft, who in 1690 demonstrated the capillaries.

The researches of Vieussens, Haller, Heckel, and Scarpa; the separation of the cerebro-spinal and ganglionic nervous systems by Bichat; the treatise by Senac in 1749 on the action and diseases of the heart; that of Avenbrugger in 1761 on percussion of the chest; the great work on pathology by Morgagni in 1762; the recognition of nerve origins of the ganglia, and of different faculties of the brain by Willis and others; the writings of Sydenham and Huxham, and the discovery of vaccination by Jenner in 1790—these are the advances which ushered in the modern period of medicine and surgery.

The investigations of Sir Joseph Lister, an English surgeon born in 1827, suggested the idea that putrefaction and other fermentative processes are caused by living germs. Lister's work on the antiseptic system began in 1864, his first publication on the subject was in March 1867.

From this idea was developed the more important inference that the failures in operative surgery were due to septic or germ infection, and that if these operations could be performed under antiseptic conditions, better results would be obtained. This principle has revolutionized surgery and placed mankind under a vast debt of gratitude to its originator. The advancements in this branch of medicine are so numerous and so spectacular as to exceed the bounds of a brief sketch of medical progress.

Pasteur's work on pathogenic microbes which was begun about the year 1854 inaugurated the theory of protective inoculation against infectious diseases. Later on he announced the results of his studies on rabies and anthrax. During the same period, Koch introduced a new method for the isolation and pure culture of bacteria which is essentially the same as that in use today.

In 1874, Ehrlich improved the method of staining smears which had been worked out by Weigert three or four years before.

This led the way to the study of a great number of micro-organisms, and became one of the most important diagnostic criteria in the practice of medicine. As a result of the researches of Weigert and Erlich, the spirillum of relapsing fever was discovered by Obermeir in 1873, and the parasitic amoeba in dysentery by Loesch in 1875. In the same year Koch succeeded in growing anthrax bacilli for the first time in artificial media. In 1879, Neisser announced the discovery of the gonococcus. In 1880, Pasteur presented his monograph on the streptococcus and staphylococcus, which he had isolated for the first time two years previously. At about the same time, Eberth described the typhoid bacillus as the cause of typhoid fever. On November 6, 1880, Laveran discovered the plasmodium of yellow fever. That disease, once dreaded as a scourge of mankind, is now practically obliterated.

Most important of the discoveries resulting from the development of the germ theory of disease, and one which attracted instant and widespread attention among the laity as well as the medical profession, was the isolation of the tubercle bacillus by Koch in 1882. In 1883, Klebs announced the discovery of the diphtheria bacillus, and its casual relation to diphtheria was demonstrated by Loeffler in the same year. The specific germs of cholera and lockjaw were discovered in 1884, that of bubonic plague in 1894, of dysentery in 1900, and of syphilis in 1906.

On September 30, 1846, Dr. W. T. G. Morton, a dentist of Boston, employed the vapor of ether to produce general anaesthesia in a case of tooth-extraction, and thereafter employed it in cases requiring surgical operation with complete success. This great achievement marked a new era in surgery. The news of the discovery was spread abroad, and the use of ether as an anaesthetic soon became general.

With the discovery of antiseptic operation, the idea was formed that the germ theory of disease was just as important to medicine as to surgery. The results of this deduction need no review. It was not until 1846 that anyone ever had the opportunity of studying the interior of a living human body in normal function.

In 1851, Helmholtz invented and developed the opthalmoscope and, for the first time, it was possible to see the interior of the human eye, which reflects, in its changes, the conditions of organs remote from it. This discovery was ridiculed by the scientific men of that day and was described as "foolish nonsense." The invention of the sphygmanometer likewise was greeted with derision and was called irrelevant and useless. The clinical thermometer came into use in 1870 and was devoloped by Dr. Edouard Seguin. The first thermometers were from ten inches to one foot in length, being carried under the arm like a gun. It took five minutes for them to register, and then they had to be read during the actual process of taking the temperature, as there was no provision for keeping the thread of mercury at its highest point.

Local anaesthesia by ether spray was introduced by Richardson in 1886, and cocaine by Anrep and Kohler at about the same time. In 1885, Dr. Corning described the results of his experience in spinal anaesthesia, and six years later Quincke emphasized the importance of the study of the cerebro-spinal fluid in certain local and systemic diseases. The work of Corning and Quincke led to the development by Crile of his method of anoci-association, which for a short period was widely used. Another noteworthy contribution to practical bacteriology was the discovery by Widal in 1896 of the agglutination test for typhoid fever, upon which is based the present-day differential diagnosis between typhoid and other continued fevers.

Dr. Charles Finlay, of Havana, as early as 1881 had propounded the theory that mosquitoes were the carriers of yellow fever infection, but it was not until 1900, when an American commission was appointed to investigate the subject, consisting of Walter

Reed, James Carroll, A. Agramonte and Lazear, that it was definitely determined that the virus of yellow fever is a parasite, requiring an alternate passage through a vertebrate and an insect host. As a result of this discovery, Cuba was made safe to the traveler and the completion of the Panama Canal was made possible.

Schaudinn's discovery of the *Treponema pallidum* in 1905, and Wassermanns serodiagnosis of syphilis in 1907 were epochmaking in their effects upon the practice of medicine.

Medical science owes much to pathology for valuable contributions to its progress within the past fifty years. Physiology has kept pace with pathology along allied lines, but its scope is wider, as it invades the domain of chemistry to some extent. This field of medical research has made more contributions of practical value than perhaps any other with the exception of bacteriology. In this field has developed the knowledge of the ductless glands, beginning with the discoveries of Brown- Sequard in 1891.

Half a century ago, Charcot laid the foundations for the later developments in the domain of psychoanalysis by his studies on hysteria. In the present generation, Freud has carried this branch of investigation to the point of practical application. The knowledge of the histology of the nervous system is attributable to Golgi's method of staining, brought out by him in 1873.

The new physiology has centered its attention upon the brain and the nervous system and the part played by internal secretion. Localization of function by the neurologist now indicates to the surgeon the exact site of the disease, tumor or injury. But, more than that, the idea of the prolongation or duplication of the brain in the form of the spinal cord, nerves and sympathetic system has introduced a more comprehensive view of what is termed "nervous regulation." The body must produce energy—the heart must do its muscular work, the stomach must prepare the food for digestion and absorption, the kidneys must excrete, and the lungs must respire. There must, therefore, be a generating and regulating station, not local only, but generalized through the body. Such is the nervous system. But it is only by the work of Fritsch, Hitzig, and Goltz, of Germany, and the labors of a group of English physiologists—including Waller, Hughlings, Jackson, Ferrier, Horsley, Shafer, and Sherrington—that, during the last fifty years, the brain has been differentiated, the principle of nervous regulation demonstrated, the sovereignty of function in the body confirmed, and the door opened into the vast, almost unexplored realm of psychological medicine.

In the eighties, the antipyretic drugs were given to the profession, and the modern sleep-producing drugs, of which trional and sulphonal are examples, were introduced in 1893. Novocain, which is widely used, was discovered by Einhorn in 1905. No more important remedial agent has been given to the medical profession than Ehrlich's salvarsan in 1909, which has done much to abate the terrors of syphilis.

In therapeutics, the most noteworthy advance was the gradual substitution of the single drug prescription for the old-time so-called gunshot prescription. A very important contribution to therapeutics was the introduction of Von Behring's antidiphtheria serum in 1893. Another was the introduction of anti-typhoid innoculation.

The most spectacular of all modern medical discoveries is that of the roentgen-ray which Roentgen announced in 1895. Not only has it become a useful therapeutic agent, but it holds a commanding position among diagnostic methods, and has made possible much of the recent progress of precentative medicine. Radium was discovered by Mme. Curie in 1898, three years after Roentgen's famous announcement. Like Roentgen's discovery the isolation of radium was preceded by pertinent investigations by Becquerel, Mme. Curie and others. Radium has been found of great value in the treat-

ment of many diseases and thanks to recent investigations, excellent results and conservative writings of well informed and scientific men, radium therapy is now on a safe foundation.

Many glands and collections of cells which are not glands have been found to pour into the blood specific secretions termed harmones, which, circulating in the blood stream, support metabolism, and integrate the chemical processes of the body. The results of the application of this knowledge seem to the layman little short of miraculous. The conversion of a stunted, potbellied, slavering cretin into a pretty, attractive, normal child by the administration of thyroid extract, and the restoration of health to a sufferer from Graves' disease by the removal of the same element present in excess—these are therapeutic process that demonstrate in a spectacular manner the genius of modern medicine.

The progress of Medical Education has also been consistent, with the establishment of higher standards in the medical schools and loftier ideals in the science of medicine. Among the medical institutions, Tulane University stands out and it is now considered one of the foremost medical schools in this and other countries. The new medical building, Hutchinson Memorial, now in course of construction will give Tulane University one of the finest and best equipped medical school buildings in the world with facilities of presenting Louisiana with a corps of physicians as well trained as anywhere to keep the health of the citizenry of this state safe.

A necessary development in the scientific care of the sick was the advent of the trained nurse in the latter part of the nineteenth century. Nursing as a profession was suggested by Dr. Samuel Gross about sixty years ago, and shortly thereafter, on August 1, 1875, the first training school for nurses was opened at Bellevue Hospital, New York City. It would be difficult to imagine the possibility of carrying out the modern methods of caring for the sick without the aid of the great body of earnest and devoted women who make up the nursing profession.

In its inception, medicine directed its efforts toward alleviating disease already manifested in the individual, but with the advancing refinement of the social organization there has come a development of interest on the part of the community in guarding itself against ill health and in some measure in protecting itself against the individual. Thus we find that present-day medicine has passed beyond the stage of mere palliation or correction and has become a positive or constructive agency building along new lines where formerly it sought only to repair or protect. Achievements of the science and art of medicine which made possible modern wonders of antiseptic surgery are now succeeded by efforts aimed at the complete elimination of diseases, as in the epoch-making activity of the Rockefeller Foundation in the eradication of yellow fever. At the close of the year 1929, nine cities with a population of more than 100,000 each reported a year free from deaths from typhoid fever. Forty-five other cities had typhoid death rates below 2.0 per 100,000. It was announced at the same time that the declining death rate from tuberculosis since 1900 has resulted in the saving of an average of 140,000 lives annually.

In the latter part of January of the present year the announcement came from the University of Chicago that after six years of research, Prof. Isador S. Falk had succeeded in isolating the specific germ of influenza which had been responsible for millions of deaths during and since the World War. This news may be premature, it is not established knowledge. During 1929, Dr. Wardner D. Ayer treated 126 cases of infantile paralysis with a newly developed serum, with remarkable results.

This brief glance at some of the more outstanding discoveries that have marked the progress of medical science during the past century gives occasion to look with encour-

agement toward the future, rich with the promise of developments that will progressively lessen disease and its resultant evils, poverty, crime, wretchedness and despair.

Despite the vast strides that have been made within recent years, much remains to be done and many pressing problems await the energy and perseverance of the medical research worker and practitioner. Among these may be mentioned the discovery of the cause of cancer; a more perfect control of tuberculosis, leading to its ultimate eradication; the ultimate elimination of venereal diseases through compulsory registration; a more accurate knowledge of the etiology, pathology and care of epilepsy, and the relief of and ultimate prevention of nutritional diseases through a more perfect knowledge of dietetics and hygiene on the part of physicians and the public.

The sickle of death still comes too early; pandemics continue to be fateful; there is a vast mass of suffering, invalidism and disablement which is preventable; the capacity and well-being of the human species falls far short of its potentiality—these are the fields of the future which are white unto the harvest. Yet in the struggle between knowledge and ignorance, science and superstition, medicine will continue to lead the way, and you, as its standard bearers, are serving your communities with a full measure of devotion.

The development of medicine must be preceded by scientific discovery, since medicine consists in an application of these discoveries. It follows that the highest duty of the medical man is to make contributions to scientific progress. To medicine is proffered the honor of universal recognition as the highest calling whose motto is "I serve." The day for American leadership in this great science has dawned, and with it the opportunity to every earnest practitioner to carry its development to heights never before reached.

THE MEDICAL PROFESSION AND THE PUBLIC.*

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The public has become health conscious. It is eager and impatient for the benefits of modern medical science. Business men, economists, sociologists, journalists and physicians have been contributing their opinions and criticisms of hospitals, nursing and medical practice. The cost of medical care is the particular item under public discussion at the moment. Judging from the volume and character of that discussion, one would suppose that we are to witness a radical readjustment of medical services, possibly without due regard for the essential character of medical practice. It is obvious that methods must be devised and previous ideas of medical care adjusted if necessary to meet present conditions in order to mobilize the enormous body of current scientific knowledge for the benefit of the individual and the community. In reality, the medical, hospital and nursing professions are aware of the problems and are gradually moulding themselves to meet present needs.

Physical and mental health are our greatest national asset. Studies have been shown quite clearly, for example, that ill-health and its effects are one of the major causes of waste in industry. The prosperity and happiness of the population are largely dependent upon physical and mental vigor. No one argues the point that every man, woman and child should have the benefits of modern knowledge of the diagnosis, treatment and prevention of disease. The problem is to devise ways and means of making that a reality. The greatest health problem before the country today is the adequate distribution of mod-

*The Stanford E. Chaille Memorial Oration, December 6, 1929, before the Orleans Parish Medical Society.

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ern medical services to the entire population at a reasonable cost.

Some maintain that the solution must be prepared by economists on the assumption that the questions are primarily financial. Others suggest that business men will solve the situation on the theory that the problem is simply one of organization. Others look to the state or to some form of compulsion to bring the desired results. It is obvious that there are features of finance, problems of organization and interests of the public in the question, but a thoughtful examination shows that the essential character of the problem is professional and technical. The quality, interpretation and correlation of scientific knowledge are dependent upon trained personnel who know the significance of that knowledge and how to apply it; only on that assumption can we expect a high degree of success in dealing with the problems.

In a democratic state like our own, changes cannot be brought about by edict or decree. We are obliged to rely upon the slower and less certain process of public education which is largely a matter of organized leadership. Our reliance for a sound solution of the health problem must be placed upon medical leadership just as problems in the fields of business, law, engineering, finance and education have been met by leadership in those fields. The medical profession should assume a large responsibility for working out the problem by virtue of it possessing the knowledge and personnel requisite for its solution. That will require some reorientation in organized medical thinking and a new emphasis on the function of medicine in the community.

A number of factors have operated to complicate the problem of medical care. Contributions to new knowledge regarding disease during the last forty years have exceeded those of the previous four thousand years. The germ theory of disease revolutionized medical thinking. It made modern public health work, surgery and obstetrics possible. New knowledge of vitamins and other factors in nutrition, of radium, the roentgen-ray and radiant energy, of the chemistry of drugs and normal as well as abnormal physiology, the technical methods of the operating room and laboratory, the control of environmental factors in community health and new ideas of mental and emotional health need only be mentioned to suggest the scope and importance of this great mass of knowledge.

The body and range of knowledge have been growing so rapidly that a subdivision of labor not only in the pursuit of further knowledge, but also in the fields of its application has been inevitable for no individual can possibly master the whole field. The intensive pursuit of individual lines of endeavor has led to differentiation and specialization which is desirable for research and quite necessary in medical practice to the extent that specialization is necessary. But it has partitioned practice into organs, systems and technical procedures with consequent dispersion of responsibility for the patient as a whole and has led to many services which are unnecessary and costly. Patients are willing to pay for what they think is "expert" advice and treatment, but quite frequently it is not "expert" advice they need. The present vogue of self-diagnosis and self-selection of specialists by patients is not conducive to proper medical care and is costly. There is need for the co-ordination of the work of individual specialists as it bears on the problem of a given patient, but not on the basis of the type of organization which has been found to be so apparently successful with unskilled labor in industry. Medical services cannot be standardized and operated on a mass production basis without destroying their most valuable contributions to human welfare and happiness.

Medical service in the last analysis, however co-ordinated, organized or financed, is dependent upon personnel recruited,

trained and distributed to meet the medical needs of the country. Some of the difficulties of the present situation are traceable to the fact that many physicians now in practice never had an adequate preparation. Until quite recently, provisions did not exist for the training of a sufficient number of physicians for the needs of the country. The sparsity of the population, the great distances and the lack of facilities for communication and transportation required an abnormal number of physicians to meet the demands for medical attention. We had only a few universities which were able to provide a thorough training, as existed in Germany or Switzerland. There were few hospitals able to assume the burden of training physicians, as in England and France. The only device was that of apprenticeship training and that for a time was a large factor in the production of physicians.

Later, groups of physicians organized classes, constituted themselves faculties, obtained charters and proceeded to teach medicine. In response to the public need and the ease with which a medical education could be secured, the student body grew rapidly. The professional and financial rewards for those who conducted the schools made the proprietary schools popular and profitable. By 1904 there were 162 medical schools in the United States, one-half the total number in the world. Most of the schools were inferior in facilities, equipment and teaching—a few were good. The unevenness in professional training of the present practitioners was due to the conditions outlined, although it is quite apparent that the product on the whole was much better than the system.

The American Medical Association began its work of standardization and classification of medical schools in 1907. Some of the states had already set standards for the licensure to practice. In a short time, the accepted standard of medical education was placed on a basis comparable in general terms with requirements abroad. As a result of these efforts, the number of medical schools dropped from 162 in 1904 to the present number of 76 approved schools, only 66 of which give a full four-year medical course. Some of the benefit gained by the elevation of standards of medical training has been offset temporarily, however, by the public and legal recognition of various cults which has now established multiple standards of practice of the healing art. The number of schools of osteopathy, chiropractic and naturopathy is now dropping, however (from 112 in 1920 to 60 in 1927). The student body in medicine dropped from 28,000 in 1904 to 13,000 in 1919. The annual number of graduates decreased from 5,700 in 1904 to about 2,500 in 1922. Since 1919, the student body has recovered to 21,000. The annual number of graduates is now over 4,400 (it will probably be close to 5,000 in a few years), which is entirely adequate for the needs of the country if properly distributed. That present standards are not deterring students from seeking to study medicine is clear from the following figures:

	1927	1928	1929
Applicants	11,282	12,537	13,569
Students enrolled (capacity of medical schools)	6,009	6,199	6,277

A factor of basic importance, of course, is the ratio of physicians to the population. There is one physician to 790 persons in the United States, a higher ratio than in most countries, as for example in:

	Persons per Physician
England and Wales	1480
Germany	1550
France	1690
Sweden	2930

The over-supply of doctors, the favorable economic conditions and the absence of restrictions associated with such devices as compulsory sickness insurance have probably been a factor in over-specialization in this country. The supply of doctors in ex-

cess of actual needs tends quite as much as emphasis in medical training to create demands and to lead toward unnecessary services with attendant extravagance and waste.

The "medical load" can be stated briefly. An average of 2 per cent of the population is incapacitated at all times. About 4 per cent is physically impaired, making about 6 per cent who are wholly or partially incapacitated. A considerable proportion of this incapacity is preventable. With an average loss of time of 7 to 9 days, the amount of lost and reduced production and earning power represents a very large figure. It is known that the annual average cost of all forms of medical care is between $100.00 and $120.00 per family for the country. But averages mean little for sickness is very uneven and not infrequently makes an economic burden which individuals are unable to meet or which can only be met by great sacrifices.

An effort to distribute the financial load of medical services over a large fraction of the population has been made in a number of countries by means of so-called sickness insurance, now compulsory for wage earners in about 23 countries. While called "insurance," it is in reality a combination of indirect taxation and compulsory saving with varying degrees of state or voluntary subsidy. The plan in Great Britain, for example, has grown out of the contract practice of the Friendly Societies and Trade Unions. The National Health Insurance Act of 1911 requires that every employed person receiving 250 Pounds a year, or less, must be insured. About one-third of the population is covered by the scheme, and each insured person is entitled to the services of a general practitioner who is paid out of the collections from employers and employees on a present basis of 9s per person per year. The plan in that country does not cover the dependents of an insured person, the services of specialists or hospital expenses. Payment for professional services is on a capitation basis.

The plan in Germany is more comprehensive and provides a complete medical service for the entire family of employed persons with annual incomes of 3600 RM or less. The payment of doctors is on a per visit basis (about one RM per office visit). At present, 5 per cent of physicians in Germany obtain their livelihood from private practice alone, 15 per cent are in salaried positions of various kinds, and 80 per cent are dependent upon insurance practice. The so-called voluntary or elective plan of sickness insurance with its provisions for indirect compulsion is used in Denmark. Sweden relies upon state salaried medical services for certain areas of the country. The Highlands and Islands Fund subsidizes medical practice in one-half the land area of Scotland. Time does not permit a discussion of the merits and defects of these and other methods of financing medical care in other countries. It should be emphasized in passing that in all the plans used abroad, the medical benefits are only a portion of a much more comprehensive scheme of contributory "insurance" for sickness, disablement, unemployment, old age, death and other benefits.

Returning to our own problems, we are confronted by the uneven distribution of physicians between the cities and the rural sections which has been a source of much controversy, but this is not a problem of recent origin and exists everywhere in the world. The main factors operating in this situation seem clear, however. The medical profession, in a system of free competition, has reacted to the shift in the relative economic status of city and country as illustrated by changes in the population gainfully employed and in the contribution to national income:

	1870	1928
	Per cent	Per cent
Gainfully employed in agriculture	47	18
Contributions to national income	26	9

The telephone, automobile and good roads have enormously increased the "cruising

radius" of physicians and permitted physicians in cities and towns to extend their practices many times, allowing them to compete with rural physicians at a considerable distance, particularly in the care of patients able to pay for their care. The "skimming" of rural medical practice has been a large factor in depleting local medical services in small and rural communities. Persons living in the country who can do so prefer to go to the cities for medical care where they can get the services of specialists and more "up-to-date" city doctors. The much better facilities for medical practice in the cities—offices, hospitals, nursing, laboratories, consultants, professional companionship—has kept most recent graduates in the cities. Present day medical training prepares students to practice medicine with facilities which are usually available only in cities. The advantages of schools, social contacts and entertainment for the physician's family particularly have also operated to draw physicians away from the country and to keep recent graduates from settling there.

Many suggestions have been made to solve the situation. Giving preference to medical students from the country has its advocates but we found that of students who came from communities of 1000 population or less only 3 per cent return. Of recent graduates in communities of that size, about 30 per cent came from rural districts, but the same proportion came from cities of over 100,000. Shortening the medical course has been suggested. The Netherlands tried that plan but abandoned it as long ago as 1860. If shortening the course would send doctors to the rural areas, one might expect that chiropractors, who have a short course, would locate there, but over 90 per cent of recent graduates in chiropractic located in communities over 50,000. Various forms of subsidies and salaried medical services for areas unable to draw or support private practitioners have been suggested along the lines already in use in some European countries.

The answer lies in the correction of the causes leading up to the present situation, as far as those causes are controllable. The development of modern facilities for medical practice—hospitals, laboratories, nursing, ambulance services—will be the largest help and has already proven to be the solution in some areas of the country. The hospital center developed for the needs of a unit of population sufficiently large to support it is the normal method of securing adequate medical personnel. Over-crowding of the profession in the cities is forcing young men out and keeping others from starting. Modern transportation and communication have revolutionized rural life and made good medical attention available in most sections of the country, although in many instances only for those financially able to command it from a distance. Already there is a definite trend toward correcting rural medical service. A satisfactory solution will be found if too artificial programs are not resorted to.

Every plan of organization is built upon an elemental "unit of operation." That unit of operation in medical practice is the care, diagnosis and treatment of the individual patient. Certain diseases are preventable through wholesale methods by the control of factors in the environment. The more effective public health activities become, the more medical service becomes individualized. Recent studies in New York State have shown that only 5 per cent of illnesses seen by physicians are of the reportable type with which organized public health activities are ordinarily concerned. The studies in Hagerstown, Maryland, showed 10 per cent of illness to be of the type with which public health authorities are directly concerned. Our own findings in the samplings of daily practice in fourteen states were similar to these. Medical practice is more and more concerned with problems of individual patients, a fact not fully appreciated by most enthusiasts for the organization of medical practice but one which is fundamental.

Efforts being made in this country to provide medical services for the population have taken a great variety of forms, too numerous to list. The number of outpatient clinics, for example, has risen from 100 in 1900 to over 6,000. The clinics of fourteen large cities which we studied provided medical care for 10 to 15 per cent of the population. Fifty per cent of patients in the hospitals in these cities are on ward services, where no charges for professional services are made. Home nursing, social service, school medical services, pre-natal and well-baby clinics and similar agencies are working in the same field. Community chests and other devices for voluntary taxation are helping to finance the medical needs of the community. Many industries are now providing full medical services for their employees, the number is increasing quite rapidly. The government, through the Veterans' Bureau, the Children's Bureau and other departments is increasing its range of medical activities. An increasing number of physicians are on salary (1/6 of recent graduates is in full salaried positions, an equal proportion is on part time salaries). Reasonably adequate provisions exist in the cities for those unable to pay for medical services. The major problem is to adapt present methods of care to persons of moderate means who represent about 80 per cent of the population. Hospitals in rural communities, hospitals and pay clinics for persons of moderate means, institutions for mental disorders, for convalescents and chronic diseases and preventoria need only be mentioned to indicate the trend.

The total annual cost of medical care for the country is somewhere near three billions of dollars, about 3 per cent of our national income. This cost is roughly divided between:

	Per cent
Physicians	23
Hospitals	27
Drugs and patent medicines	26
Private duty nursing, attendants	17
Dentists	6
Non-medical practitioners	1

While the aggregate amount is very large, it is not so staggering when compared with other national expenditures as illustrated by:

Passenger automobiles and accessories	$4,000,000,000
Cigarettes, cigars, tobacco	1,800,000,000
Candy	1,000,000,000
Theatres, movies and entertainment	930,000,000
Soft drinks, ice cream, chewing gum	910,000,000
Jewelry and fur articles	780,000,000
Phonographs, pianos, radios	440,000,000
Sportings goods, toys, games	431,000,000
Perfumes, cosmetics, toilet soap	410,000,000

It is in this group of expenditures, totaling over ten billion dollars, that advertising is such a large factor in creating and stimulating demand. The public buys what it is taught to buy and manufacturers spend one and a half billion dollars a year in that instruction. Medical services are essential to modern life and are now able to provide protection and care which were entirely unknown a few years ago but because of their nature they do not lend themselves readily to devices for stimulating demand. The public is being convinced, however of the value of proper medical services and that it should pay for them, though it may mean curtailing some of the unnecessary expenditures, particularly by those of moderate means who are a large factor in the buying of non-essentials and for whom the question of adequate medical care is most prominent.

The total cost of medical care when compared with other items of our national expenditures is not alarming, but there is a great deal of unevenness in its distribution and other defects which need correction. Some medical services for even those of moderate means are unnecessary and in the nature of luxuries. Expensive hospital rooms, private nurses, laboratory and roentgen-ray examinations, consultants and specialist services are often demanded by patients and relatives and not infrequently encouraged by doctors when they are not necessary. Often many special examina-

tions are made because the patient insists or is likely to go to some doctor who will do them, a "salesmanship" feature of practice. "Diagnosis by exclusion," when not indicated, is an expensive luxury. Unnecessary surgery is quite common. Surgery done by those who are not thoroughly competent is expensive and risky, regardless of the fees. Occasionally excessive charges are made. The instances that do occur are often quoted widely but they are not a large factor in the usual cost of medical care. The income of physicians is relatively low compared to the investment of time and money in a medical education, the economic uncertainties and risks of practice, the investment in equipment and the overhead of conducting a practice in keeping with present day needs.

Let us turn for a moment to the efforts being made to help the general situation outlined so briefly. It seems clear that the most important factor in the problem is that of personnel, an essential part of which is the training of medical students and in which significant changes are now in process.

It seems clear that a factor of greatest importance in the adequate distribution of modern medical services is that every physician should be kept abreast of new ideas and methods of diagnosis and treatment, which means that every physician must continue his education as long as he remains in practice. A very important feature of present day medical training is the effort to equip every student to continue his own self-education throughout his entire professional life by a number of devises tending to place responsibility on the student for his own training and developing in him sound habits as well as sound methods of study.

Another change is that toward making the medical course a unit and more comprehensive in its treatment of medical problems. It is an endeavor to correct the division of the medical sciences and clinical medicine into water-tight compartments which has been a factor in over specialization and the confusion in medical teaching. Everyone recognizes that it is impossible for a student to master all phases of current medical knowledge. A number of schools now provide that the basic courses shall be introductory in character by postponing details and technical features until later, some of them to the field of postgraduate training. There is a trend toward emphasizing the great variety of economic, social and emotional factors in illness and the fact that the patient as a whole is the unit of medical care, not diseases, organs or mechanical procedures. Training for the practice of the clinical specialties should be postponed until after completion of the basic course.

The preventive aspects of medical service are coming in for increasing emphasis. The occurrence of many preventable diseases and much preventable incapacity is a direct challenge to medical practice and teaching. Efforts are being made in a few medical schools to emphasize periodic medical examinations, as an illustration, and most schools give attention to the care of normal children and to the features of prevention in obstetrics. Only recently, however, has there been any attempt to mobilize the whole curriculum to present the preventive aspect of each subject, an aspect which can be made very important in such subjects as physiology, for example.

The importance of therapeutics is being re-emphasized. The help to be secured by rest, proper diet, mental hygiene, exercise, sunshine and other physical agencies has not been properly stressed in much of teaching which has for a time been concerned so largely with laboratory diagnosis and technical methods. A type of "physiological thinking" about the whole patient is coming into therapeutic procedures.

In the intern period, now regarded as an integral and probably the most important part of the basic training, the student is usually taught to rely too much upon specialists, consultants, nurses, laboratory workers, roentgen-ray departments,

dietitians and the other personnel of the hospital staff for the best interests of his own training. The many services provided for the diagnosis and care of hospitalized patients, for investigative work and hospital records are all very important for their several purposes but the intern should not be taught that all these are necessary for the care of every patient. There is a strong belief that much is done in the hospital period to make the student unwilling or unable to practice medicine in communities where all or most of these special services which he has come to regard as necessary for practice are not available.

Post-graduate medical education is receiving an increasing amount of attention and promises to be one of the largest problems with which the medical profession must deal in any plan of securing an adequate distribution of health services. In time every physician practicing medicine may be required to attend some approved form of continuation education in order to keep abreast of developments in medicine. Countries like Germany have recognized such continuation training as of great benefit to the public and have financed activities to provide it. There are 41 medical schools giving post-graduate courses in this country and in nearly every state, the medical associations and universities are working out systems of extension teaching, special courses and other details of this important feature of medical service. More than 3500 physicians are taking courses each year in our post graduate departments alone and about 1000 others are doing post-graduate work abroad.

Associated with the continuation training of physicians in practice is the training for the specialties. The time will probably come when those who limit their practice will be obliged to have a special preparation for their work, possibly a special license to practice their specialty, which will carry some guarantee that the surgeon, for example, who proposes an operation is in fact competent to do what he proposes. To the public a doctor is a doctor but the range of competence is still very wide. This feature of medical practice has been worked out in Denmark, for example, where every specialist has a designation secured only by following a prescribed training for his limited field of practice.

Physicians not limiting their work to a specialty should be prepared and ready to give a more complete and thoughtful service to each patient. The public should be urged to go to a family physician for periodic examination and advice and be willing to pay for that very important service, rather than shop around among specialists on the basis of self-diagnosis. Such a plan puts responsibility upon the physician to refer patients to specialists and laboratories who actually need special examination or treatment.

The emphasis upon preventive medicine fits closely into such a plan of individual consideration. Doctors should be interested in 100 per cent of the population, not the small fraction who are actually under treatment. It requires the doctor to know normal health and the wide range of factors in the environment, diet and conditions of employment which influence health and to serve as a "trainer" as well as healer. The work with well babies and children, pre-natal care and periodic medical examinations indicates the direction in which part of medical care is going. The public will pay for such services when convinced of their value and when it is clear that they are not intended merely as devices to increase the practice of doctors.

Hospitals should extend their functions of care and study of the sick to become the centers of continuation training of practitioners and the central agency in community health work. No agency in the health field is so well organized or adapted to the newer opportunities of medical service and public education in health mat-

ters. The hospital is the normal channel of organized medical practice through which to obtain an adequate distribution of medical services for the country.

Coordination of the vast number of community agencies working in the health field need only be touched upon. The overlapping and duplication of activities, competition and confusion means excessive costs, ineffectiveness and a false sense of accomplishment. Medical practice by lay bodies only hampers the development of a comprehensive program of community health work. How the plan for a given community should be worked out must, in the nature of the problem, depend upon local conditions, local public opinion and especially upon local leadership, a set of circumstances which is widely divergent in different places.

I have tried to bring before you a few of the perplexing problems of medical service, without suggesting a method of dealing with all phases of it, for the good reason that there can be no single or nation-wide scheme that will be sound. The important fact to be emphasized, however, is that the questions of medical care are of a highly technical character, requiring a wide range of knowledge and trained personnel. The medical profession is the trustee of the necessary information and possesses the technical knowledge and skill for the solution of the problem. An appreciation of that responsibility is introducing a new thinking into the medical profession and is bound to develop the leadership necessary to meet present day conditions, secure an adequate distribution of health services for the entire population and provide a body of trained and competent personnel. That leadership should be our contribution to national welfare and the justification for our existence in modern society.

PREOPERATIVE PREPARATION.*

URBAN MAES, M. D.,

NEW ORLEANS.

Both the current literature and the textbooks of surgery treat the preparation of the surgical patient in a most cavalier manner, devoting little attention to it or none at all. Whether this is because such care is taken for granted, or because the subject is not considered worthy of discussion, I cannot undertake to say. At any rate, it cannot be ignored in this fashion in the practice of clinical medicine.

I am not an advocate of an elaborate preparatory ritual. It has been my personal experience that the best recoveries after operation are made by the patients who have had the least preliminary treatment, who are snatched, as it were, from the midst of their normal lives. In fact, I usually put it to my classes that my smoothest convalescences are exhibited in patients picked up off the streets. Perhaps I exaggerate, but every experienced surgeon is aware of the astonishing amount of trauma and manipulation which totally unprepared accident patients can withstand without shock, a fact which was corroborated in literally thousands of instances during the World War, when, because of the necessities of the situation, the most daring procedures were carried out with absolutely no preparation, and when the convalescences were actually smoother than is ordinarily the case in civil surgery.

The normal patient who submits himself to elective surgery enters the hospital the night before operation, is given some simple hypnotic to insure rest and sleep, and is disturbed as little as possible until morning. If he is wakeful during the night, he may have hot milk, and in the morning, according to his preference, he may have orange juice or black coffee. At an appropriate time—which does not mean in the midst of

*Read before the Surgical Staff of the Charity Hospital at its regular monthly meeting, December 18, 1929.

his sound slumbers—the area of operation is scrubbed and shaved, and a soapsuds enema is given. A hypodermic of morphia and atropin half an hour before operation concludes the preoperative care.

So simple a routine as this obviously demands some explanation, though I offer no apology for it because I am satisfied with its effectiveness. I would remind you, however, that I am speaking of the normal patient and of elective surgery, that I am excluding gynecologic and prostatic conditions, which I do not propose to treat, and that I am deferring for the present the discussion of special medical conditions and of special operative procedures.

Preliminary hospitalization is not called for in the average case, except at certain seasons of the year, when respiratory infections may be latent and may be fanned into activity by the stimulus of inhalation anesthesia. Even in this climate, in which the incidence of postoperative pneumonia is not high, this is a wise precaution in the winter and early spring, for I am rather inclined to agree with the authorities who claim that postoperative pneumonia in most instances is merely another name for unrecognized preoperative pneumonia.

Preliminary purgation is not only unnecessary but actually harmful. It achieves the very results it aims to avoid. It disturbs intestinal peristalsis and induces intestinal inertia, thus paving the way for a subsequent ileus. It increases the bacteria present and enhances their virulence. It results in a greater absorption of toxins and a greater permeability of the intestine to micro-organisms. It disturbs the chlorid balance of the body. It causes flatulence and distention, which add to the technical difficulties at operation, and it causes gas pains and other intestinal complications later. Finally, especially if it is associated with dietary restrictions, it is responsible for many cases of postoperative acidosis. There is no question but that the omission of purgation, the maintenance of the usual diet and the forcing of fluids give incomparably better results than the old drastic method of purgation and starvation. The emptying of the lower bowel by enema, however, is not open to these objections, and the procedure adds greatly to the patient's comfort in the day or two after operation, when normal peristalsis is generally markedly disturbed.

In the preparation of the skin, scrupulous cleanliness and careful shaving are all that is necessary. Antiseptics do little more than supply a color scheme, and in my opinion tissue insults and not inadequate skin preparation are responsible for most wound infections.

Debilitated and rundown patients, of course, fall into a separate category. They are benefited by a preliminary rest in bed, forced feeding, forced fluids and general supportive measures. In hemorrhagic conditions or in the anemias, especially when the coagulation time is prolonged, transfusion may be helpful, though the criterion for its use should be the patient's general state rather than an arbitrary hemoglobin level. Infusion, especially of Ringer's solution, is a valuable measure in intestinal obstruction of the chronic type. I do not, however, believe in the routine administration of sodium bicarbonate, or in similar measures designed to guard against a possible acidosis. When postoperative complications are feared, or when there is likely to be a heavy loss of blood at operation, it is a wise measure to type the patient and secure donors against the necessity of a later transfusion.

In all patients, normal or otherwise, focal infections of the mouth and throat must be eliminated, and in elective surgery I should be inclined to defer operation until such conditions have been corrected, for they may be responsible for such serious sequelae as parotitis and pneumonia. This measure is particularly important in surgery of the gastro-intestinal tract.

I have not stressed the making of a complete physical inventory, because I consider

that a part of the diagnosis rather than of the preoperative preparation, and I assume that it is done in all cases, with particular reference to the competency of the heart, lungs and kidneys. Constitutional diseases, whether definite or merely suspected, demand special tests, but if these elaborate investigations are done routinely in all cases, both patient and hospital will be put to unnecessary inconvenience and expense.

The preparation of cardiac and renal patients is a matter for the internist, and it was excellently presented before this staff a year ago, by Dr. Chaillé Jamison. In these cases the surgeon should subordinate himself to the medical man, leaving to him the responsibility of the preparation, and leaving with him also the decision as to the proper time for operation.

The surgery of diabetics, once attended with a tremendous mortality, has become increasingly safe since the introduction of insulin, thanks to the work of such men as Joslin, McKittrick and Root, and, in this community, Dr. I. I. Lemann. Diabetics, as you know, are not only liable to the ordinary diseases and accidents which demand operative intervention, but they are especially susceptible to malignant disease and to infection, while diabetic gangrene is a definite surgical problem in itself. Dr. Lemann has kindly prepared for me the following statement of the principles upon which his practice is based, to the excellent results of which I gladly pay my tribute.

"Diabetic patients without infection who are to undergo elective surgery should be brought into the best possible condition by the adjustment of their diet and the administration of insulin if necessary. Operation should be deferred until the urine is free of sugar and ketone bodies, and until the blood sugar is within or near normal limits, though this latter requirement cannot always be strictly met. For at least two days before operation the diet should be fairly liberal in carbohydrates, even though insulin must be given to offset them, in order to permit the necessary storage of glycogen in the liver. Some hours before operation, usually at midnight, an extra feeding of carbohydrates, such as oatmeal or orange juice, is administered, and additional insulin is given if necessary.

On the operating table 20 c.c. of 50 per cent glucose solution is given intravenously, with insulin by hypodermic to insure its utilization, the amount of the latter depending upon the severity of the diabetes. In mild cases, where previous to the administration of glucose there has been no glycosuria, at least 1 unit of insulin is given for every gram of glucose. The point of this therapy is to offset the postoperative period of starvation and possible vomiting, though this latter complication is usually absent in patients treated by this method and operated upon under ethylene anesthesia.

After operation the surgeon is requested to proceed as if the patient were not a diabetic. Sweet drinks are given, or glucose by proctoclysis, this diet being offset by the administration of insulin every four hours in doses regulated by the intensity of the Benedict reaction in the urine.

The second group of patients is represented by those who have infections either essentially dependent upon the diabetes, such as gangrene, or occurring merely as a complication, such as acute appendicitis. In such patients operation should not be deferred, but should be performed even more promptly than in non-diabetic cases. Infection is borne badly, the diabetes is made worse by it, and it in turn is aggravated by the diabetes. Thus a vicious circle is established, which must be broken by surgery at the earliest possible moment. All possible safeguards are employed. Operation is done preferably under local or spinal analgesia, though ethylene may be used where these are impractical. Glucose and insulin are administered on the operating table, as has been described, and after operation fluids are forced, and the diet is rich in easily available carbohydrate food. Insulin is used at regular intervals. In

short, such patients, preoperatively and postoperatively, are treated as if coma were impending."

With these precautions, as I have said, serious surgical procedures can be undertaken with uniformly good results.

Certain special operations demand certain special preparatory measures. Thus, patients with toxic goiter must have a careful evaluation of their entire physical apparatus, with special reference to the neuro-circulatory system. The treatment includes a liberal diet, forced fluids, rest in bed in hospital under competent nurses, and the administration of Lugol's solution as indicated, measures which have replaced digitalization, and polar ligation as a measure of surgical tolerance. The estimation of the basal metabolic rate is extremely important, but it is of value only in correlation with other objective and subjective findings. It serves as a criterion of operative safety, though the rate itself is not of prime importance. That is, we are concerned not with an arbitrary level but with its rise or fall. A patient with a stationary high or ascending rate is a poor risk, whereas a declining rate, even though still high, may be accepted as an indication of safety.

Stomach cases, if malignancy or benign pyloric obstruction is causing stasis or dilatation, are benefitted by preoperative gastric lavage. This measure is not necessary in the usual type of ulcer, since the stomach contents are sterile. Operations on the lower intestinal tract should be preceded by a period of dietary restriction, the diet being limited to food scanty in residue and slow to decompose, and this measure should be supplemented by rectal irrigations. I question the value of vaccination against bacterial flora, as suggested by Rankin, though I think the transformation of the flora by the use of lactic acid bacilli, as advised by Bass, for other intestinal conditions, may do good.

Patients with advanced disease of the gall-bladder and bile passages usually exhibit hepatic incompetency and are definitely bad surgical risks. Special blood tests are obviously indicated in this group. The use of calcium lactate prior to operation, to raise the coagulation time, which is notoriously prolonged in many instances is being rather generally supplanted by the use of dextrose solution intravenously, in a dilute, slightly hypertonic solution. The rationale of this method is set forth in a most enlightening article by Ravdin of Philadelphia, who adduces both clinical and experimental evidence to the effect that these patients suffer from a deficiency of carbohydrate metabolism, and that they exhibit also an absence of glycogen storage. Therefore a preoperative regimen of high corbohydrate diet, plus dextrose, with insulin in those cases in which there is also a pancreatic deficiency, is rational and effective.

Operations about the anus for fissures, fistulae and hemorrhoids will be more successful if fecal contamination of the parts can be avoided until the traumatized tissues have been protected by exudate and granulation. In this single instance, therefore, I advocate purgation several days prior to operation, as well as enemas twice daily. While I permit the patient to choose the purgative to which he is accustomed, I consider castor oil especially good because the constipation which it habitually induces is an additional factor of protection.

In conclusion, I might point out that it is not only in toxic goiter cases that the attitude of the nursing and medical staff plays an important part in the patient's well-being. The psychologic factor cannot be ignored in modern surgery. An attitude of wisely measured sympathy, which errs neither on the side of callousness nor on the side of sentimentality, will do much to prepare patients for what, as Moynihan with his usual wisdom points out, is to us an incident of our daily lives, but is to them on ordeal, perhaps the severest they will ever be called upon to undergo.

CONSERVATIVE MANAGEMENT OF HYDRONEPHROSIS.*

H. W. E. WALTHER, M. D.,

NEW ORLEANS.

If one is to judge by the discussions so frequently noted in the literature of the day, hydronephrosis still receives much attention. Its incidence has by no means been reduced by any known efforts along lines of prevention. The etiologic factors back of this interesting group of urologic cases have been accorded a most thorough study by a number of our leading investigators in genito-urinary pathology. The studies of Hinman are most illuminating. Briefly, he postulates that of the *congenital* forms of hydronephrotic obstruction he places abnormalities of the posterior urethra and bladder neck in the lower tract and, in the upper tract, anomalies of division and of termination of the ureter as well as anomalies of vascularization. Of the *acquired* forms he mentions prostatism, ureter stricture, ureteral kinks and renal mobility—the last three named he classifies as undetermined. He also uses the words mechanical and dynamic as well as primary and secondary to designate types. The physiological studies of Blatt on the ureter, in its relation to the formation of hydronephrosis, have advanced our knowledge much as regards inhibited peristalsis following experimental reinnervation of the ureter.

Earlier investigations, made principally upon autopsy material, brought out varied forms of pathologic lesions productive of hydronephrosis. It remained for more recent investigators, with the aid of urography, to demonstrate early manifestations in the living subject at a period where relief—if not cure—could be practiced.

Besides nephrectomy or nephrotomy, plastic operations on the renal pelvis and ureter have their advocates. The severance of aberrant blood vessels has been practiced. The three most recent masterly contributions to this field by von Lichtenberg, Walters and Braasch, and Quinby are familiar to you. Their contributions to our knowledge concerning the surgical management of hydronephrosis, aimed at preserving the integrity of the affected kidney, are most creditable. The ingenuity and skill displayed by these masters of technic arouses admiration. Still, it is highly improbable that the procedures they advocate will ever be acceptable to the occasional operators of surgical kidney conditions. Such surmise is borne out by the opinions of such authorities as Keyes, Lee-Brown, Thomas, and others. Interesting as they are, elucidation of the many theoretical phases of the subject would carry us beyond the confines of my subject.

One cannot launch into the subject of hydronephrosis without feeling that intelligent conservatism deserves consideration at the hands of those called upon to treat the condition. Many years of urologic consultation with this group of unfortunate urges me in this plea. One is led to the conclusion that unless each and every case is given the benefit of a preoperative study of both kidneys with cystoscope, ureteral catheters and the roentgen-ray, nephrectomies or nephrotomies will continue to be performed injudiciously to the consternation of both patient and surgeon when later the same process develops in the opposite side. It has fallen to my lot to treat many cases of hydronephrosis in the nephrectomized and whereas it is no doubt true that in many instances removal of the pathologic kidney was the only sane procedure to adopt, still, in a smaller number falling within this group, conservative, nonoperative treatment might have been tried. Far too frequently cystoscopic treatment of renal stasis is ignored.

It is not my purpose to deride nephrectomy as a procedure selected after nonoperative means of relief have failed. My purpose is simply to present this phase of treatment with the hope that non-operative

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means at our disposal of dealing with hydronephrosis be not rejected.

As you know, the causes of hydronephrosis have been grouped under two main captions, namely, the intrinsic and the extrinsic. Of the former, stricture, stone and tumor are commonly accepted as frequent agents that favor pyelectasis. In the latter group, extra-urinary influences, such as the pregnant uterus interfering with free renal drainage; aberrant blood vessels, which deviate the ureter in its normal excursion to the bladder; and, any lesion which might destroy or appreciably damage the nerve supply of the ureter (arresting its peristalsis)—all must be considered in a discussion of this subject. Furthermore, congenital anomalies must be accorded a prominent place in the etiologic scheme of hydronephrosis, for, although much less frequently met with than any of the aforementioned factors, still these irregularities invariably lead to pyelectases. Nephrotosis has long been associated with hydronephrosis but, in my experience, the two conditions are not commonly found together.

Aberrant blood vessels play a minor role here and rarely is it found necessary to divide the vessel. Obviously such operations are not without their dangerous sequalae as sloughing of an entire pole of a kidney can follow such interference with renal circulation. Has the aberrant vessel theory been over-emphasized? We believe it has. It is just as sound to contend that a weighty kidney pedicle sags over the first support it encounters in its downward excursion. If the support happens to be a blood vessel, is it logical to infer that that vessel has caused all the trouble? Many urologists cannot accept the theory of Quinby that the anomalous blood vessel is a common cause of hydronephrosis.

Hunner's work on ureter stricture is being more widely accepted as time goes on. There can be no doubt in the minds of most urological surgeons that stricture of the ureter plays an active part in the formation of many hydronephrotic sacs. The proof that such sacs diminish appreciably under simple uretral dilatation should convince the most skeptical.

Ureteral calculi, so commonly met with in the South, add their just quota to the list of pyelectases observed. Here, too, by means of bougie dilatation, supplemented occasionally with the indwelling ureter catheter, many cases of hydronephrosis are relieved promptly by liberation of the stone.

The acute dilatations of the renal pelvis in pregnancy are almost daily encountered in our obstetrical services and again the indwelling catheter does yeoman's service. The harmless repetition of catheter drainage in these cases establishes the procedure as sound.

In order to arrive at a conclusion in a given case, it is not sufficient to simply demonstrate an enormous dilatation of the pelvis of the kidney. To determine the underlying cause is paramount. If the fault lies in the ureter, good urograms are essential. A single series of films may not suffice. This applies especially where filling defects might be caused by spasm. Studies of the emptying time of the kidney pelvis, by means of serial films, often furnish valuable clues. Opaque solutions warmed to body temperature and introduced by gravity cause less discomfort to many demanding repeated studies. Working on a modern cystoscopic-roentgenographic examination table, which permits of upright as well as horizontal exposures, is most desirable.

In the initial efforts to relieve these cases by non-surgical means, it is often surprising how much can be accomplished by cystoscopic interference alone. By means of the introduction of a No. 11, whistle-tipped catheter to within the dilated sac and allowing it to remain indwelling for a period, stasis, and its

accompanying symptoms, can be relieved. This form of renal decompression is no cure-all. It will not replace surgery in many instances. But in that group of patients which prove poor surgical risks, either because of complications elsewhere, or advanced age, the procedure has its place. As a preliminary step to contemplated surgical intervention, as in cases of advanced hydronephrosis complicating renal stone impacted at the uretro-pelvic juncture, this mode of decompression has its advocate.

It is not mete to deride a procedure until it has been subjected to impartial trial. I submit that indwelling catheter drainage, in the treatment of hydronephrosis, particularly the early types, deserves consideration. In our efforts toward establishing procedures both rational as well as conservative, it is but proper that renal lesions be not forgotten. Because of the possibility of saving some kidneys, this contribution is submitted.

RIGHT SIDED ABDOMINAL PAIN AND THE INCIDENCE OF KIDNEY AND URETERAL STONE.*

A. G. PAYNE, M. D.,

GREENVILLE, MISS.

Every doctor recognizes the difficulty of diagnosing abdominal conditions, and all agree that there are more difficulties in the diagnosis of conditions in the right than in the left side. When you think of the possibilities of error in left sided abdominal diseases you see how few organs there are to consider in the differential diagnosis of a pain in that side of the abdomen. Diverticulitis may be difficult to diagnose and a left ureteral stone may require some study, but these are mere trifles compared with the right sided pitfalls.

A few years ago when Cabot made the assertion that 40 per cent of all cases coming to the dead house of the Massachusetts General Hospital were cases of missed diagnosis, he was terribly censured and, if I am correctly informed, the Medical Society of Boston tried to have him expelled for such accusations.

The September, 1921, issue of the London "Lancet" contains an article by Rowan of the St. Andrews Institute of Clinical Research. He shows that not more than 38 per cent of cases in institutional work are properly diagnosed, and only 23 per cent of private practice cases are thus diagnosed.

Such accusations coming from two men of such eminence should awaken an enthusiasm among all medical men to attain more accurate diagnosis, for truly the diagnosis of any condition is paramount to its proper treatment.

The present tendency to group medicine and special examination along all lines is getting too many men away from what that great teacher, Murphy, accredited the greatest teacher of Medicine the world had ever known, who taught that careful history taking would give more valuable information concerning the patient, than all else combined.

I have no fight to make against careful, painstaking laboratory work in all of its various branches, for we cannot practice scientific medicine without it, but we all know that it is a matter of absolute impossibility for the men who practice in the rural districts to have all such means at their command, and they must be expert diagnosticians or their clientele will suffer as a consequence.

There is too much tendency for surgeons to know too little of general medicine and medical men to know too little about surgical diagnosis. The knowledge of the internist is necessary to the surgeon; he is far from accomplished without it and it is of the utmost importance to all concerned to differentiate between a medical and a surgical condition.

Right sided abdominal pain may mean so much to the patient that he should have

*Read before the Delta Medical Society, at Greenwood, Miss., April 9, 1930.

every precaution in arriving at a diagnosis, taking into careful consideration all factors that might prevent his falling into either the institutional 62 per cent, or the private 77 per cent of improper diagnosis. This can only be prevented by a careful history taking, careful clinical observation, subjective and objective, laboratory findings, which should include blood count, microscopic examination of urine, cystoscopic examination and roentgenograms, where there is the least doubt about the findings, before subjecting the patient to operation.

There is a mooted question at the present time among urologists as to ureteral kinks and strictures. Some claim that a great many real pathological conditions exist as a consequence of such kinks and strictures while others claim the kinks and strictures exist only in the brains of the men who know that they exist and find them. Even so, I know from experience, that we should bear in mind ureteral kinks and strictures when considering pain in the abdomen, especially when the history and symptomatology are contrary to that usually found in the kidney and ureter.

I now have under observation a woman who has a ureteral kink that causes great pain, and a retention, at times, of 400 cc. of urine in the left kidney. She had had ureteral dilatation and kidney lavage for eighteen months before coming under observation of a very prominent New York urologist, who advised her, fourteen months ago to have her kidney removed. But it is of considerable interest to note that since the removal of her tonsils and a few bad teeth, some three months ago, that her urine has become normal and she has had no more pain nor trouble with the ureteral spasm nor with distention of the kidney.

This matter of kidney infection, ureteral kinks and strictures and the clearing up of such conditions after the removal of foci of infection was brought out by Dr. Guy L. Hunner, of Baltimore, several years ago and it is very interesting, as is the whole subject of foci of infection affecting all parts of the body.

The vermiform appendix is the cause of more right side pain than all other internal organs, and one should not parley with too many means of differentiation when the classic symptoms of pain, rigidity of right rectus muscle, fever and high blood count prevails. We should get the appendix out. But beware of those conditions in which that array of symptoms and conditions do not exist; you may remove an unoffending appendix and leave the patient to suffer with renal or ureteral calculi as a heritage, and for the surgeon, censure on the one hand and remorse on the other. I might perhaps suggest that we should all make fewer mistakes in diagnosis in right side abdominal lesions if we were not obsessed by the ever present shadow of the appendix.

A case that came under my observation a few years ago will illustrate this point. Mr. J. P. came to my office suffering intense pain in the right lower quadrant. He was insistent that I give him something quickly to relieve his pain. I tried to get him to give me a specimen of urine, but he could not get his mind on urinating and instead had it fixed on getting something to relieve him. I said to him, "I usually try to find out the cause of the pain before giving pain relieving medicine, but if my way does not suit, you had better go elsewhere." Upon history taking and examination I found that he had had his appendix out two years before and his gall bladder drained one year before and still had the same cause for pain, a stone, lodged at the time in the right ureter, and easily removed by the aid of the cystoscope.

A recent case in my hands will also show the importance of thorough examination in case of right side pain before being subjected to operative interference. Mr. E. A. sent to me for operation for acute appendicitis, came in the hospital at 4 P. M. with a temperature of 104°, pulse 120, a white blood count of 8000. The temperature continued throughout the night with pain in

the right side of abdomen, but no rigidity of right rectus. I did not think the condition one of appndicitis, from its incipiency, though the blood count was 17,000 early the next morning, but due to the apparent urgency of the symptoms and from the fact that he had been sent in with a diagnosis of acute appendicitis, I, without further observation or examination, opened the abdomen to remove a normal appendix, and then had him pass, per uretha, a stone, with much mucus during the next few hours.

In a recent letter from Dr. W. F. Braash he stated that about 33 per cent of cases of stone in the right kidney and ureter, so diagnosed at the Mayo clinic, had previously had other operations performed for the supposed trouble. Those cases of his from many surgeons and from all over the country; those of yours and mine whom we have given a hasty examination and an undue operation, only teach us the all-important fact to give time and due consideration before subjecting one to a needless hazardous operation.

In a recent case in my experience, parleying with the patient came near costing him his life. This was one of those cases of diagnostic insufficiency. He had a normal blood count 24 hours after I first saw him, and 72 hours after onset of symptoms. There was much pus in the urine, as shown by the microscope, no stone shown by the roentgen-ray plates, nothing revealed by cystoscope, no rigidity of right rectus, temperature of 100°, pulse of 90, and all pain in the back in the region of the right kidney. The man was not acutely ill, but rest in bed and light diet did not improve him. His temperature gradually rose, also the leukocytosis increased and after eight days of torturing him with roentgen-ray examinations, cystoscopic and physical examinations and after a mass formed in the abdomen I decided to open him up. I found an enormous pus cavity which must have been an appendiceal abscess (retrocecal), as the subsequent fecal discharge through the wound and the urine becoming normal would indicate.

Such cases as these make differential diagnosis of pain in the right side which may be either acute appendix, acute gall bladder, pyloric or duodenal ulcer or rupture, kidney or ureteral stone in the male and the same in the female, plus trouble with the right adnexa, of the utmost importance, and we should under those circumstances learn the lesson of a good soldier, that it is as imperative sometimes to cease firing and lie down as it is to observe the command to charge or fire.

This idea is meant more for the men who regard purgation as being indicated in all abdominal pain, for verily do I believe that many lives are sacrificed as a result of the administration of all forms of purgation in the incidence of pain in the abdomen.

One of the proudest experiences of my life as a medical man was at the Surgeon's Club at Rochester, November, 1910. We had under appendicitis discussion. I made the assertion that, in my opinion, a patient never succumbed to the first attack of appendicitis unless purged. A doctor from Gadsden, Ala., was on his feet instantly and wanted to know if I took the position that those cases should not be purged. I answered him thus: "If you were in such condition, would you want to be purged?" This brought down the house. The next day, the last case Dr. Mayo operated upon was a pus appendix, and discussing the case, he made the assertion: "Some one must have given this case a purgative and Moynihan says that purgation in such cases mens perforation and peritonitis."

It is never easy, and often impossible, to make a positive diagnosis of conditions in the right upper abdominal quadrant during their earlier stages. Here errors of diagnosis are not made from insufficient knowledge or lack of ability in making an examination, but rather are due to wrong interpretation. The clinical signs here presented require much judgment for the proper interpretation, and hence it is necessary not only to consider the whole

syndrome, but to take careful account of everything that enters into the history, development and duration, and to employ all means at our command for our keenest observation; as often a correct diagnosis rests on some small detail. Each symptom must not only be carefully weighed, but the patient's general condition must be invariably considered. It is this region that so often baffles the skill of internists and surgeons to give a diagnosis and in many instances if rushed to a diagnosis and operation an exploratory incision will have to be made to demonstrate the pathological condition.

I have had patients ask me the question, subsequent to a successful operation, "Doctor, why didn't you operate on me sooner?" And I was just as frank with them and told them, "Had I done so I would not have known where to make the incision, and since you have been successfully operated upon, I think I am to be commended instead of censured."

THE RETROGRADE METHOD OF DILATING CICATRICIAL STENOSIS OF THE ESOPHAGUS.*

HAROLD LESLIE KEARNEY, M. D.,

NEW ORLEANS.

You are all familiar with the old story of cicatricial stenosis of the esophagus and perhaps many of you have in years gone by witnessed the unhappy and untimely ending of some of these unfortunate little patients. In more recent years the technic of esophageal bouginage has been so improved that the old dictum of Trousseau that "sooner or later the patients die of the bougie," no longer is true. The vast majority of cases of cicatricial stenosis of the esophagus are in children and are most frequently due to the accidental swallowing of solutions of commercial lye. Less frequently other corrosive chemicals are at fault and tuberculosis, lues, diphtheria and typhoid may be the cause. I have had one case which followed scarlet fever. These strictures are most often located at the anatomical narrowings and points where the bolus of food pauses in its descent through the esophagus, thus giving opportunity for longer contact of the corrosive poison with the mucous membrane.

The sequence of events in cicatricial esophageal stenosis from lye burn is acute esophagitis, sloughing of the mucosa from ulceration and then stricture from the contraction of the scar tissue during the healing of the ulcerative process.

Strictures, particularly those from lye burns are more likely to be multiple than single and in the multiple strictures the lumina do not exactly overlie each other, but are eccentric. The esophagus is dilated or pouch-like above the stricture and funnel shaped below, as was first observed by Billroth.

Blindly pushing down a bougie from above to dilate cicatricial stenosis of the esophagus is exceedingly dangerous, as the bougie is likely to be engaged by the pouch-like dilatation at the site of the stricture and perforation of the esophagus result.

Some six years ago, Gabriel Tucker of Philadelphia, devised his retrograde esophageal bougie, which is the best instrument for its purpose that has yet come to my attention. The bougie is made of soft rubber moulded on an endless braided silk thread. A loop is left free at either end and the intervening portion is knotted to prevent its pulling out of the rubber. The ends are tapered to present a gradual dilating surface and the bougie is made in even sizes according to the French scale from 12 to 32, and in addition there have recently been added two larger sizes, 36 and 40. In carrying out the treatment, the first step is gastrostomy. After gastrostomy has been established, a thread is swallowed by the patient. The upper end of the thread is, of course, made fast, so

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that the entire thread will not be swallowed. When the gastrostomy tube is removed the thread will frequently be found wrapped around it. If not, then a long blunt probe, with one-fourth of an inch of the end bent to a right angle, is introduced through the gastrostomy opening and the thread caught up and pulled out of the stomach with this hook. A heavier braided silk thread is then attached and the original thread is used to pull the braided silk through the esophagus and out of the mouth. This leaves one end of the braided silk projecting from the mouth and the other end projecting from the gastrostomy fistula. The gastrostomy end of the silk is attached to one end of the bougie and a fresh length of silk attached to the other end of the bougie. Then the index finger of the right hand is introduced into the mouth and the bougie is gently pulled up through the esosphagus by traction on the thread with the end of the finger. If too great resistance is met for the bougie to be gently pulled through, then the bougie is too large and a smaller size must be used. As the bougie is pulled through it pulls the fresh piece of silk which is long enough for the upper end to then be passed through the nose and tied to the lower or gastrostomy end of the thread which makes an endless string which is worn over the ear. Thus when bouginage is necessary at short intervals, the process of rethreading the esophagus is obviated. The gastrostomy tube, which is used not for feeding, but for the purpose of keeping the gastrostomy fistula from closing, is replaced. Treatments are carried out usually at bi-weekly intervals, using the greatest care in stepping up the sizes of the bougie. It must be remembered that too rapid dilatation of the esophagus by any method will cause rupture of the esophageal wall from the sudden overstretching, with fatal result.

CASE HISTORY.

Frank C., aged 4 years, was referred to me by Dr. L. H. Landry on May 4, 1928. Eight weeks previously the patient swallowed lye. The lye had been mixed to scrub the floor and the child thought it was water. The mouth and throat were burned severely, but until two weeks previous there was no difficulty in swallowing. Since that time dysphagia had progressively increased until at admission he could not take milk. Some water seemed to pass through. When food was taken it was either vomited immediately or shortly afterward. At esophagoscopy a stricture was encountered 15 cm. from the upper incisor teeth. The stricture was almost pin point in size. A number 10 Jackson filiform bougie was gently insinuated. There was no resistance, the stricture evidently being loosely organized and the pin point opening enlarged very easily. A number 15 Jackson filiform bougie was then passed with no resistance. The patient went home and failed to return at the appointed time for treatment.

When next seen two weeks later he had been unable to swallow anything for twenty-four hours. Esophagoscopy at this time revealed merely a small dimple like depression at the point of the stricture. The smallest Jackson filiform bougie would not pass. Gastrostomy was done by Dr. L. H. Landry the following day. Twelve days later the patient swallowed a thread and seventeen days after gastrostomy retrograde bouginage was started and after about one month more gastrostomy feeding was stopped. At the present time a size 36 bougie passes readily and the patient takes all kinds of food without difficulty.

SUMMARY.

1. Blind bouginage is dangerous.

2. The retrograde method combines rapidity of cure with the safest form of dilating cicatricial strictures of the esophagus.

3. Neither hospitalization nor anesthesia are required for retrograde bouginage.

4. All strictures in cases of multiple strictures are dilated simultaneously.

5. Perforation of the esophagus is impossible with this method and with proper care rupture of the esophagus from the injudicious use of an oversized bougie should never occur.

6. Gastrostomy is a simple operation and should almost always be done in cases of cicatricial stenosis of the esophagus in children. By its means treatment is facilitated, nutrition is maintained and esophagitis is combatted.

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DISCUSSION.

Dr. Lucian H. Landry (New Orleans): The treatment of cicatricial stenosis of the esophagus has undergone radical changes in the past ten or fifteen years due to better methods of arriving at a diagnosis, contributed by the fluoroscope and the roentgenogram, and more satisfactory means of treatment by direct vision through the esophagoscope.

A radical departure from the older teachings is seen in the practice of early gastrostomy in caustic burns, rather than being used simply to feed the patient after signs of starvation had appeared. The early gastrostomy has the added advantage of putting the esophagus at rest while nutrition is being maintained, and thereby aiding in the early healing of the raw surface.

As has already been mentioned by Dr. Kearney, the use of the blind bougie today should be condemned, as the mortality in the reported cases ranges from 15 to 20 per cent and most probably higher.

The older treatments varied from an injection of a 15 per cent alcoholic solution of thiosinamin beneath the skin between the scapulae (Telleky, 1902) to applying caustics through an esophagoscope to the stricture in hopes it would eat its way through—up to the radical operation of transpleural and transperitoneal esophagogastrostomy, and even further by three plastic operations to exclude the thoracic esophagus by antethoracic esophagoplasty, where plastic operations on the thoracic skin and jejunum are done in an effort to make a substitute tube for the cicatrized esophagus.

According to Park's surgery, external esophagotomy was first performed by Goursault in 1773 with good results. Internal esophagotomy consists of the introduction of instruments into the canal for the purpose of dividing strictures.

The instruments employed are made after the manner of urethral instruments and are used much in the same way. The operation is fraught with great danger and nearly 25 per cent of the cases have died (according to Park).

Electrolysis has been advocated by Fort and Ginsez. Symonds used a short rubber tube for intubation of the esophagus in incomplete strictures. Abbe's method consisted of using a string saw to cut through a stricture by a combined gastrostomy and cervical esophagostomy, or through the mouth. Billroth used conical shaped rubber bougies filled with sho⁴ or quick-silver. Jacobson advocated a tapered stalk of laminaria tied to a string, in the hope that the laminaria could engage in the stricture before it began to swell.

Schede is given the credit of first suggesting retrograde dilatation through a gastrostomy. The feeding of string in an effort to get beyond the stricture was suggested by Dunham and Mixter; with a string guide beyond the stricture, it soon passed through the stomach and could not be extracted.

By pulling the string taut an excellent guide was had over which a bougie could be threaded to follow the course of the string. This method has been strongly emphasized and used extensively by Plummer.

A paper by Dr. W. J. Mayo in the A. M. A. of July, 1899, described an operation devised by Dr. A. J. Ochsner in which a gastrostomy is done and a silk guide passed either retrograde or from above; to this string is tied a double rubber tube which is pulled up from below and made to engage in the stricture; when the tension on the rubber tube is released, it acts as a dilator. As the stricture releases, larger sizes may be used.

This method of retrograde bouginage demonstrated by Dr. Kearney, as described by Gabriel Tucker is a refinement of Ochsner's operation and is by far the safest, sanest and surest method of dealing with this distressing deformity. There is no doubt that with an early gastrostomy, the getting of a string through the esophagus before it closes and gentle retrograde treatment that the vast majority of these cases can be permanently cured.

Dr. Monte Meyer (New Orleans): We have a case at Charity Hospital who has been there for two and a half years. We have tried to get her to swallow string and have never been successful. I would like to ask Dr. Kearney how he makes them swallow the string in infants too young to understand.

Dr. E. Denegre Martin (New Orleans): Those who have had experience with these cases can readily understand what this improvement means. The demonstration makes it plain. I began this work before the present method was known—retrograde or anything else. The great difficulty in these cases was to know where you were. Quite frequently accidents occurred. In one case we went through the esophagus into the chest cavity. Of course, you know what happened.

Dr. Parham and myself had one case in particular. In one instance we left the bougie in a long time and the child died as a result of

slough. In the retrograde method you at least have a guide.

It is necessary to begin dilatation early. How long will it have to be kept up? I suppose it is like dilatation of any stricture, it must be kept up pretty regularly. I would like to know if these cases have been permanently relieved.

Dr. Kearney (closing): Dr. Martin asked about the permanence of cure. I saw a child from Hattiesburg in 1921 who had lye stricture of the esophagus which I dilated by peroral esophagoscopic bouginage up to 20 French. I have not seen this boy for eight years but get a Christmas card from him every year. His cure is permanent as far as it goes but he needs a larger lumen than 20 French. I think if these cases are dilated up to 40 French that there is very little likelihood of the esophagus closing up again.

I had one case of cicatricial stenosis of the esophagus of some ten years standing resulting from scarlet fever. The patient who was referred by Dr. Ed. Faust, had a stricture admitting a 14 French bougie. Gastrostomy was done by Dr. Faust and retrograde bouginage instituted. She now has a 45 French opening and swallows all kinds of food normally.

Dr. Meyer inquired about the method of swallowing the thread. Inducing a very young child to swallow is often a difficult proposition. Ordinarily it is done as follows: A yard of buttonhole twist silk thread is fastened to the patient's blouse and the end either introduced gradually into the mouth for the patient to swallow or the end may be introduced through the nose and a little more put in now and then. It may take weeks to get an infant to swallow a thread. The co-operation of an intelligent nurse is indispensable. Another method is to "thread" the esophagus by retrograde esophagoscopy in which a small Jackson steel stemmed bougie is introduced from below and gently passed through to the mouth where a thread is attached and the bougie withdrawn carrying the thread with it.

I want to thank Dr. Landry particularly for bringing out one thing in his discussion; that is, his insistence on getting the patient to swallow the thread early. As long as a patient has a thread through the esophagus the treatment can go ahead easily no matter how small the lumen of the stricture. Once the esophagus is completely closed making an opening is always extremely hazardous and most frequently impossible.

I have one little fellow under observation whom I first saw some seven years ago. Dr. Matas had done a gastrostomy for him and had referred him for dilatation. For some reason or another he deserted treatment before dilatation could be started. Seven years afterward the child was brought back to me presenting the most extreme case of malnutrition I have ever seen. He was eight years old and weighed twenty-four pounds. The mother had fed him on a totally inadequate diet consisting largely of condensed milk. He has complete closure of the esophagus. The possibility of restoring his esophagael function is almost if not entirely nil.

SOME OBSERVATIONS ON SIMPLE BLOOD SMEAR AGGLUTINATION TESTS IN TULAREMIA, TYPHUS AND UNDULANT FEVER.*

A PRELIMINARY REPORT.

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In attempting to determine the cause of certain obscure conditions, fevers particularly, there is likely to be a call for laboratory procedures that by present methods are time-consuming. As it is becoming apparent that such conditions as tularemia, typhus and undulant fever are of clinical importance in this vicinity, the occasion frequently arises for agglutination tests for these diseases, as by this means a clinical diagnosis may be further substantiated.

Accordingly, it has seemed of interest to report certain observations on agglutination of these organisms, using a simple blood smear or drop of serum and the specific killed bacterial suspension.

The reports in the literature in which use is made of agglutination reactions on a slide are not numerous. However, when one considers the usefulness of the Bass-Watkins[1] slide agglutination test for typhoid and para-typhoid and the more recent slide agglutination reactions for syphilis of Butler[2] and Kline[3], it would appear that in this field there is some hope for further simple and efficient diagnostic procedures. Such simplified methods would be of use not only to the general practitioner, but to the clinical pathologist as

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well, who is beginning to be burdened by an increasing number and variety of laboratory procedures.

It is of interest to note the use made of slide agglutination tests previously. In 1896 Johnson[4] described a simple slide technic, using a drop of blood or of serum and a drop of a bouillon suspension of typhoid organisms in testing for the agglutination of typhoid. This preparation was examined under the microscope.

In 1910 Bass and Watkins[1] described their macroscopic slide test for typhoid, using a concentrated killed antigen and a blood smear from a suspected case. This latter technic was a radical departure and is the basis for the present work of the author. In 1923 Huddleston and Abell[5] described a slide test for Bang's abortion disease in cattle, using a drop of serum and a killed concentrated bacterial suspension. Hull,[6] in 1929, described a similar test for tularemia.

The author has been utilizing such a serum technic for some time in the diseases herein mentioned and in addition using the blood smear method, which has been found more convenient or practicable in certain instances.

Brief mention of the various methods of the laboratory diagnosis of these conditions is made as follows:

Tularemia, typhus and undulant fever may all be identified by microscopic or tube agglutination tests, using suspensions of the organisms concerned. In addition, recourse may be had to blood cultures and to intradermal reactions in undulant fever and animal inoculations in tularemia. It is easily perceived that all of these are rather intricate and time-consuming procedures.

GENERAL STATEMENT OF METHOD.

A heavy suspension of killed organisms is placed in contact with a blood smear or a drop of blood on a slide. Accordingly the materials required are: a drop of blood or serum or an ordinary blood smear on a slide, a drop of water, tooth-pick, and a drop of the suspension concerned.

METHOD OF PREPARATION OF THE SUSPENSIONS.

The organisms were grown on suitable solid media in Roux flasks and a heavy suspension was made in water or 1.7 per cent saline which contained 1 per cent by volume of formalin. The formalin serves to kill the organism and to preserve them for years at 10°C., or for months at room temperature if kept stoppered. The resulting suspension contained 10,000 million organisms per cubic centimeter and resembled a 1 to 4 dilution of buttermilk in water in appearance. The usual precautions of testing each new suspension against known negatives and positive specimens was observed.

It might be remarked that laboratory workers should be especially careful in handling live cultures of the tularemia and undulant fever organisms.

TECHNIC.

To an ordinary blood smear or a drop of blood or serum on a slide, one drop of water was added and by means of a tooth-pick the water was spread and the blood cells dissolved. One drop of bacterial suspension was added and the mixture agitated on the slide by tilting it back and forth for one or two minutes. A positive result was shown by the formation of clumps, which were easily visible to the naked eye, or a negative one by no change. It was considered advantageous to run a negative and a positive specimen at the same time as the suspected blood.

Using this method the author has examined all the specimens available in the last year. Specimens of 9 cases of tularemia, 4 of typhus and 4 of undulant fever were examined. The blood smear technic was satisfactory in these cases. The reaction was negative in 50 normal bloods.

DISCUSSION.

In this series of cases, which was necessarily limited, the slide method has given

results as useful as the standard tube method. If the titre value of the suspected blood was very low, the blood smear method was occasionally negative or doubtful. Later in the disease the blood smear test was positive. In the few cases of a doubtful result with the blood smear, we have used a drop of pure serum, or a drop diluted 1 to 2 or 4 on the slide in the same manner as described, and in every case the result checked exactly with the standard tube method and, in fact, was more definite.

The question of specificity of the slide method arises as it does with any other method. The phenomenon of cross agglutination occasionally makes the interpretation of results difficult by any method, but for all practical purposes of diagnosis, may be ignored. Further work on the preparation of suspensions and the correlation of methods is being done.

SUMMARY.

(1) A blood smear agglutination technic for tularemia, typhus and undulant fever, which may be done at the bed-side, is described.

(2) The time required to make the test and to obtain a negative or positive result is not over two or three minutes. The simplicity of the test permits frequent repitition later, with litt'e effort, if any doubt exists.

(3) The materials necessary can be carried in one's bag and are as follows: a vial of killed formalized bacterial suspension, a blood smear, tooth-pick, two medicine droppers.

(4) The suspensions keep for months at room temperature.

(5) Any one of several febrile conditions can be diagnosed or ruled out in a few minutes.

(6) The results compare favorably with more elaborate and exact methods.

(7) These simple agglutination tests should encourage more frequent use of serologic methods in the diagnosis of obscure fevers.

CONCLUSION.

Observations on the slide agglutination method for tularemia, typhus and undulant fever are reported. This method has been tried on the few cases available and is as satisfactory as the tube method.

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The author is indebted to the following physicians who allowed him to obtain specimens from their patients: Dr. Elizabeth Bass, Drs. P. H. Jones, M. O. Miller, J. H. Musser, F. M. Johns, A. Mattes, D. H. Trepagnier, C. L. Eshleman, J. A. Lanford, W. C. Rucker, Herbert Cannon, B. J. DeLaureal and others. Also the author is indebted to Mr. Max Bergeron, United States Marine Hospital for technical assistance in preparing the suspensions.

DISCUSSION.

Dr. F. M. Johns (New Orleans): I think some ten years ago I reviewed the literature of the Bass-Watkins test for the State Medical Society, and called attention to the fact, at that time, that Dr. Bass was the first one to point out that dead and preserved bacilli still have their bacterial specificity, as shown in the agglutination reactions.

This method of Dr. Lewis's, whereby simple blood smears are used, will be of value to general physicians who have not the advantage of a laboratory. False reactions will probably fall in the same class as typhoid tests. Use a known negative as a control always.

With regard to the necessity for testing for undulant fever, I am satisfied we have had the B. abortus infection here for ages—at any rate from twelve to fourteen years. There was a case of Dr. Elliott's in Charity Hospital that I clearly remember. At that time we thought this patient was an imported case, or might have come from imported goats at Kenner. Two years ago, I found the first undoubted endemic case I have been able

to find in a patient from Bogalusa, and this indirectly stimulated the survey of some of the dairy herds in that setion. I have a report that was made of the prize herd of the State of Louisiana at the Louisiana State University. Forty-nine per cent were infected. Practically all of these cases had histories of spontaneous abortions.

I am satisfied that infectious abortion of cattle is widespread here and has been for many years. I am sure we have more cases than are supposed.

The general use of pasteurized milk is one of the things that has prevented more infection here in New Orleans. I believe that our health agencies have been lax in not enforcing a sanitary code requiring all milk to be pasteurized.

Dr. C. C. Bass (New Orleans): The trouble about Dr. Lewis' test is that it is too easy. Many years ago John A. Watkins and I put forward a test of this same type for typhoid, the quick macroscopic typhoid agglutination test. Notwithstanding the fact that the test can be made at the bedside in a minute or two with a minimum of material, and that the results are quite reliable, it is not taken advantage of nearly as much as it shou'd be.

This same principle of macroscopic agglutination and precipitation test is applicable in a great many other diseases. The demonstration which Dr. Lewis has just made of its application in the diagnosis of syphilic indicates the wide range of usefulness of the method. I believe that the test he has described, subject to whatever changes or refinements greater experience may suggest, will be adaptable for general use in the diagnosis of syphilis and will ultimately take the place of more elaborate, difficult and expensive blood tests.

Dr. Seab J. Lewis (Closing): I wish to thank Dr. Bass and Dr. Johns for their liberal discussion. I am indebted to Dr. C. C. Bass for the principle upon which this test is based, and like Dr. Bass, I do not understand why this simple principle has not been applied more. I have done every type of agg utination test, as has most every laboratory man, and I have come to the conclusion that the simple blood smear, or drop of serum is best. It can be done in a minute or so.

I wish to thank Dr. Johns for elaborating on the standard methods. You can see that somewhat intricate methods are in general use. I wish to make a confession: I diagnosed a case as positive when it was negative, but had the pleasure of detecting my own mistake.

Dr. Bass mentioned the prevalence of undulant fever among cows. I do not see why we do not have more cases of this disease. We should gradually have become aware of them before this if there had been a large number, it would seem. The fact remains that in spite of the widespread infection among cows and goats, the disease is not so common among humans at present according to our recent work.

THE CHRONIC APPENDIX FROM THE ROENTGENOLOGICAL STANDPOINT.*

ADOLPH HENRIQUES, M. D.,

NEW ORLEANS.

With an experience of more than 5000 gastro-intestinal cases examined fluoroscopically, in addition to necessary roentgenograms, the writer feels privileged to present the roentgenological aspect of chronic appendicitis.

By chronic appendix is meant one which has been subjected to repeated acute attacks, according to MacCallum, or one which is chronic from the beginning of the inflammation. That an appendix may be chronically inflamed without prior acute attacks is accepted by many pathologists. The fact that there is no unanimity of opinion among them does not minimize the value of the pathological diagnosis nor its importance to patient and physician.

Appendicitis usually begins in the crypts of its lumen, with bacterial invasion. A defect in the mucosa is necessary as the starting point of the infection. Hence, appendicitis is still regarded as enterogenous. Its hematogenous origin is considered the exception rather than the rule.

Stagnation in the appendix is an important factor in producing inflammation even as it is in other organs, the number and virulence of the bacteria present being increased. With stagnation, food residues undergo putrefactive changes. There are now ready for absorption, as well as action upon the mucosa, bacteria and chemical toxins, the rich lymphoid tissue present favoring absorption. In the stagnant appendix, we have a culture tube at body

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temperature, bacterial implant and culture media. The presence of bacteria other than the colon bacillus indicates that the gastric juice was not sufficient to destroy them. Stagnation is proof of the lack of prompt elimination regarded necessary for physical health.

If we cannot put our hands upon a symptom complex due to the absorption of toxins and bacteria from the appendix, as well as due to their local action in the production of inflammatory processes of varying degree with varying amounts of localized pain, the fault lies in the multiplicity of possibilities, local and general. Absorption of bacteria through intact intestinal mucosa and the "subinfection" of Adami are well known. The amino-acids alone, aside from carbohydrates and fats, form more than four quadrillion possible combinations. Chronic degenerative changes of distant structures, alteration of normal secretions and functions are logical sequences of the long continued absorption of bacteria, their toxins and their decomposition products in any part of the body.

The stagnant appendix can be demonstrated by careful fluoroscopic examination with the roentgen-ray. Here, as in the study of the upper digestive tract, more information can be obtained by fluoroscopy. To depend upon a few roentgenograms, alone, without fluoroscopy, in a gastro-intestinal study is to employ a method at least fifteen years behind roentgenological progress and entirely obsolete in the writer's experience and practice.

Personal observations demonstrate that some of the appendices remain stagnant for days, even after the administration of purgatives.

Post-mortem studies or operative procedures under general anesthesia preclude the possibility of obtaining certain facts concerning the motor function of the colon in its relation to the appendix, by reason of the relaxation of the colon musculature then present. This information can only be obtained by roentgen examination or by an abdominal window, the latter not yet in vogue among human beings.

An opaque meal, with roentgen-ray observations, yields valuable data. Objection has been raised to this method, claiming that the colon was lowered by the weight of the barium (120 grams). The work of Katsch in 1914 proved conclusively that the position of the transverse colon could be unmistakably altered by the administration of medicinal agents acting upon the nerve supply of this organ. In the same patients, using first pilocarpin to stimulate the vagus, the colon was raised above its normal position and its haustral segmentation increased to the point of hypersegmentation and the production of spastic contraction. With belladonna, to reduce the vagus activity on the opaque colon, the colon was lowered below the normal position and its haustra relaxed to the point of atonicity. The same nerve supply is at work to affect both motor phenomena and secretion. Katsch, by pharmacological means acting upon the nervous system, was able to produce the same types of spastic or atonic constipation which the writer has, for many years, seen in routine practice in hundreds of cases where there had been no such medication. The spastic type is far more frequent.

Either the atonic or spastic type of constipation may be present without the appendix necessarily being filled, but if the tension within the caecum becomes sufficiently great, the appendix will fill. This filling is found with greater frequency in the spastic type by reason of the fact that here the retrograde movement of colonic contents is greater, the intracaecal pressure greater and longer sustained.

The writer has long taken the position that the appendix fills by retrograde peristalsis, when marked. Retrograde peristalsis exists normally in the colon and nowhere else in the digestive tract, unless obstructed. Its occurrence has been demonstrated by Bergmann and Lenz, Bloch,

Boehm, Kaestle and Brugel, Schwarz, Stierlin, Rieder, and causes a backward coursing of the colonic contents into the proximal colon. These observations in man coincide with the findings in the colon of animals, established by Cannon and others. Roith and DeQuervain have noted it in cases where the ileum has been transplanted into the transverse colon, with retrograde movements to the caecum. The writer has noted it many times.

This retrograde peristalsis, ordinarily insufficient to fill the appendix, becomes increased in spastic constipation. If the spasticity is marked or if the process is sustained, the appendix will fill. This spasticity may be prolonged for hours or days in the colon.

Personal observations have shown a filling of the appendix, when both caecum and appendix were inverted, i. e., upside down, as a result of the increased intracaecal pressure. In practically all the recorded observations, where the methods of examination have been described, and in which it is claimed that the appendix fills normally, pressure over the caecum was used, either manual or instrumental. In this way, the appendix can be filled.

Some of us know that the bowel may even be ruptured by sufficient intracolonic pressure.

Groedel's work with a large number of healthy individuals and the writer's experience with children indicate that the appendix does not fill under normal circumstances. That an increasing number of children will be found with filled appendices can be predicted with the increasing strain of our present civilization upon the nervous system.

It is admitted that a filled appendix may be normal anatomically, but if it does not empty promptly, remaining stagnant for 24 hours after an opaque meal, the conditions exist for the ready occurrence of an appendiceal attack and toxic absorption. If the colon remains spastic, the danger is all the greater. The damning back into the appendix by an increased retroperistalsis provides a mechanical means for the production of the mucosal defect necessary for an inflammation aside from bacterial action *per se*. Under such circumstances, the appendix will not remain normal indefinitely.

The appendix varies in its position in the abdomen from the right upper quadrant to the left lower quadrant and is even found below the level of the symphisis publis. When under the fluoroscope, the palpating finger elicits pain over the filled appendix, usually most marked at its cecal attachment, this is of great diagnostic signficance. The chronic appendix is sensitive in all the regions to which it can be displaced, the region from which displaced usually negative. This tenderness may have entirely escaped the notice of the patient up to the time of examination, other symptoms dominating the picture. In the fewer cases where the appendix, though present, is not visualized, palpation may aid by noting, upon moving the cacum into various positions, any points of tenderness corresponding to the usual locations of the appendix.

To draw definite conclusions as to positive pathology because one does not see an appendix, usually on a roentgenogram, is fallacious. One might assume, with equal unscientific reasoning, that because one hears no rales in the lungs that tuberculosis must be present, or that, because no crepitus or deformity is present, a fracture must exist.

At times, other lesions of the digestive tract are found, associated with the chronic appendix. Unless a thorough study of the patient as a whole is made and other surgical or medical conditions associated either in or outside the digestive tract taken into consideration, the operation may not prove successful in relieving the patient's complaint.

As a result of roentgen observations, the writer has advised operation in hundreds

of cases where a stagnant appendix with definitely localized tenderness was found. At the same time, attention was called to other conditions present, discoverable by the roentgen-ray. Where the appendix has been removed in these cases and, for accompanying conditions, suitable treatment employed, many sufferers from gastro-intestinal complaints have been markedly benefited. A source of infection and absorption has been removed, a source that wou'd not be tolerated anywhere else in the body. A recurrence of attacks has been prevented, recurrences which so easily lead to tragic consequences. The patients are frequently relieved of an annoying and distressing pain.

Let us not grow disgruntled nor disheartened because we cannot define a symptom complex for the chronic appendix. The chronic appendix requires surgical removal. The motor derangement of the colon preceding it, usually associated with it and so frequently persisting after it requires the skill and care of the internist. In this care, the influence of the nervous system should not be overlooked.

Roentgen-ray fractures are usually clinical fractures. Roentgen-ray chronic appendicitis is clinical appendicitis plus a finer distinction. It is also surgical appendicitis. In the absence of unanimity on any subject within the realm of human knowledge, the preponderance of authoritative opinion must prevail.

As a result of seventeen years of study of the appendix problem, the writer makes the following classification of the stages in the production of appendicitis:

1. Right sided colonic stasis, the spastic type predominating.
2. Increase of the retrograde movement of the proximal colon, resulting in an increased intracaecal pressure and the filling of the appendix.
3. Stagnation in the appendix.
4. Appendicitis.

DISCUSSION.

Dr. J. H. Musser (New Orleans): I am always skeptical about the chronically diseased appendix. I think if Dr. Henriques had the opportunity of seeing the large number of patients we have occasion to see in the Out-Patient Department, who have had their appendices removed and no relief of symptoms, he also would be more skeptical in the end. I believe the difficulty lies in the fact that innumerable appendices are taken out without careful study. The lesson we have to learn from Dr. Henriques' paper is that we should not devote our attention to any particular phase of diagnosis, but to employ all methods to arrive at a diagnosis. Chronic appendicitis can produce various symptoms. I believe even among roentgenologists there is a diversity of opinion as to what should be the standard diagnosis of a diseased appendix. Some men say a filled appendix is a diseased appendix; some men say an empty appendix is a diseased appendix, so I think when we are prepared to submit a patient to operation for removal of his appendix that every factor should be taken into account, the history, physical examination, blood count, pyelogram, and intestinal roentgenograms; every phase very thoroughly studied before that patient is subjected to an operation which possibly may not do any good whatever, and possibly may leave him worse off than before his appendix was taken out.

Dr. Abe Mattes (New Orleans): The paper of Dr. Henriques on chronic appendicitis is a subject that calls for considerable attention not only by internist and surgeon, but also by the gynecologist and in addition to the urologist. In spite of the fact that you often find some disturbance in the appendix and that disturbance is in the nature of, and has been diagnosed, chronic appendicitis, it does not detract from the fact that there are perhaps other conditions responsible for the symptoms of which the appendix is only a part, and the removal of that organ will in no

way affect the patient or relieve him of his symptoms.

The diagnosis of chronic appendicitis should always be taken with a grain of salt. Spastic colitis is frequently due to a right ureteral condition, or a condition of the pelvis of the kidney or of the kidney itself. In a number of cases symptoms are caused by ureteral reflux, present in women frequently during the time of menstruation, and in man when they are required to hold in their urine a little too long, and more frequently when there is a prostatic condition present. So you will find a spastic condition produced by many causes on the right side, and it hardly seems fair to always pick on a little worm while overlooking the ovary and other female organs—the ureter, kidney, urethra, prostate and the bladder itself.

Dr. Adolph Henriques (closing): I wish first to thank those who have discussed this subject.

Dr. Musser, who is my chief in medicine and has had a very broad and experienced outlook in medicine, has adopted a very conservative attitude. I think the fault, in the study of the appendix in so many cases where it has been removed without results, lies in the fact that the appendix was not diseased, or the associated conditions which existed in the colon, or anywhere else in the digestive tract, or outside, were not taken into consideration. In other words, a thorough study was not made of the cases.

I started to make a detailed examination of the various cases which have been diagnosed chronic appendix, either alone, or with associated conditions found by roentgen-ray, and after studying several hundred, I gave up from sheer fatigue. As a complication, the ureter unquestionably, sometimes, plays a part. Among my cases, were some with chronic appendix alone, some with ureteral calculus, while others had one or more of the various complications enumerated by the discussants. The frequent association of diseases of the genitalia is too well known to discuss.

We were speaking of the chronic appendix itself. In the majority of these cases, a spastic condition of the colon exists due to increased stimulus of the vagus, that is of nerve origin. Now, where the nerve stimuli comes from, I do not know; I question if anybody does. You can determine the spastic colon only with the roentgen-ray. If there is any other way of finding it, I would like to know what it is.

THE COMMON COLD: WITH ESPECIAL EMPHASIS AS TO ETIOLOGY AND TREATMENT.*

D. W. HAMRICK, M. D.,

CORINTH, MISS.

If there is any one illness in our branch of the profession that we see constantly, think little of, know little about, treat with questionable intelligence, do little good, yet gain considerable revenue from it, it is the "common cold." We do far more for the patient, treat with far more intelligence, and give more value for money received in treating the complications of the "common cold" than we do in our handling of the cold itself.

Every ear, nose and throat man has been thoroughly trained and experienced in treating tubo-tympanitis, myringitis, otitis media, mastoiditis, acute and chronic sinus trouble, tonsillitis, pharyngitis, laryngitis, and the other conditions which may result from the "common cold," and yet we spray and swab and pack and prescribe for a bad cold without giving much thought as to scientific reasons as to why we do any particular thing, since the cold itself is self-limited and will usually get well in spite of our treatment.

The "common cold"—is it "common" because of its mild severity, or because it is of no great importance either physically or economically? I do not think so. It is "common" because everyone has it and one knows about as much about it as another.

According to statistics published recently by "The Committee on the Cost of Medical Care," a national organization of doctors for the study of our illnesses, the facilities available for their treatment, and the cost of such treatment, about 56 per cent of all our disabling illnesses have their origin in the "common cold." Out of one hundred and thirty million disabling illnesses tabu-

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lated by the U. S. Public Health Service in a single year in the United States some seventy-three million four hundred and fifty thousand had their origin in the "common cold." It is estimated that the thirty million wage earners in this country lose annually some two hundred and fifty million working days from all illnesses. Applying the above data, we find this same group of workers lose each year something over a hundred and forty million working days each year from the "common cold" and its complications. Transposed into dollars and cents on a conservative average wage we find that this "common cold" costs our laboring class alone, roughly a half billion dollars annually in loss of time.

With these remarks in support of its frequency of occurrence, and great importance, I wish to bring to you for your serious consideration, earnest discussion, and mutual help, the outstanding things we know about this common malady with especial consideration as to its etiology and treatment.

ETIOLOGY

If there is a single specific etiological agent, we can say it is not known at the present time. During recent years there has been considerable claim of a specific filterable virus having been isolated as the causative factor. But there has been just as convincing work refuting this claim, especially the work of Branham, Hall, Nevin, Williams, Gurley, and Robertson who sprayed filtrates from the noses of coryza patients into the nose and throats of healthy individuals without reproducing the disease. Neither is there any adequate proof that contacts have anything to do with it, since the so-called cold organisms have been sprayed into the nose and throats of healthy individuals without producing a cold.

These facts being well supported, let us consider all the probable causative factors discussed in the literature.

This entails a discussion of predisposing causes, atmospheric factors, bacteriological agent whether primary or secondary, and individual resistance.

Dwyer lists the predisposing causes as physical, chemical, bacteriological, toxic, anaphylactic, endocrine, and medicinal.

The physical predisposing causes may be any condition in the nose or throat favoring venous stasis or congestion in the nose, such as spurs, deviations, exostoses, enlarged turbinals, adenoids, diseased tonsils, or chronic sinus disease. General predisposing causes may be any systematic condition favoring venous stasis in the nose such as intestinal toxemia.

Chemical predisposing causes may be irritant gases acting locally on the nasal mucous membrane, or the production of abnormal amounts of split-protein products in the intestinal tract such as histamine and certain amines which cause a constriction of the venules of the abdominal viscera with a compensatory dilatation of the venous system of the nose. An excess formation of certain acids, mainly oxalic, due to changes in intestinal flora may also be a predisposing chemical factor. This in turn combines with calcium in the system and lowers the alkaline reserve of the body causing an acidosis. That there is a condition of acidosis during the cold and even in the early stages all agree, but whether this is *post hoc* or *propter hoc* so far as the cold is concerned I cannot say, nor can I say whether this is the explanation of the acidosis or not, since any febrile condition may cause an acidosis.

The bacteriological predisposing factor is attributed to changes in the normal bacterial flora of the nose.

The anaphylactic factor in predisposition is no doubt hereditary, and consists in a sensitivity to certain protein substances in the air or absorbed from the G. I. tract. Closely allied to this is certain endocrine imbalances which predispose to colds.

Certain drugs in strong solutions or in excessive amounts, such as silver nitrate,

adrenalin, and potassium iodide may also predispose to colds according to Dwyer.

The atmospheric factor in the etiology of colds entails a discussion of the heat and moisture mechanism of the body as carried on by the vaso-motor system of the mucous membrane of the nasal passages and the skin, and the striking coordination with which they function. About 80 per cent of the heat lost from the body is through the skin and 20 per cent through the nasal mucous membrane. During rest the moisture eliminated through the skin and nasal mucous membrane is about equal. The heat dissipated through the skin is given up in three ways: evaporation, convexion, and radiation. That through the nasal mucous membrane is largely by radiation. That through the skin serves the useful function of regulating internal temperature and keeping the surface of our bodies warm. That given up through the nasal mucous membranes serves the vital function of warming the air for our delicate respiratory organs. The moisture given up through the skin is largely excretory, and serves the useful function of elimination and keeping the outer surface of our bodies moist. That given up through the nasal mucous membranes is largely secretory, and serves the useful purpose of moistening the air for our respiratory organs. Thus surrounded by a constant film of moisture, and it being necessary to moisten everything we take in, man is literally an aquatic being. The delicate balance or coordination between the nasal mucous membrane and the skin can be well shown by four simple illustrations.

Cold Dry Air—Increased heat eliminated by nose, decreased by skin. Increased moisture eliminated by nose, decreased by skin. Normal.

Cold Damp Air—Increased heat elimininated by nose, decreased by skin. Decreased moisture eliminated by nose, decreased by skin. Nasal stasis.

Warm Dry Air—Decreased heat eliminated by nose, increased by skin. Decreased moisture eliminated by nose, increased by skin. Nasal dryness.

Warm Moist Air—Decreased heat eliminated by nose, increased by skin. Decreased moisture eliminated by nose, increased by skin. Normal.

This explains why we are more susceptable to colds in winter than summer, since we have more cold damp weather. This explains why Arctic explorers have practically no colds, since the balance in the heat and moisture mechanism of the nose and skin is preserved. This explains why our overheated homes and offices make us more susceptable to colds since the air is almost invariably overheated and dry, thus overthrowing this balance. This explains why a so-called draft or the chilling of our extremities predisposes to a cold. Either one subjects a limited portion of our bodies to a colder medium than that about the rest of our bodies or the surrounding air we breathe, and as a result we get a constriction of the venous capillaries of the restricted area of the skin with a reflex or compensatory dilatation of the venous capillaries of the nose which is not needed, and this is prolonged until we get nasal stasis.

I have gone into this in some detail because there is considerable belief that all our colds, at least in their early stages, may be simply a manifestation of a deranged vegetative nervous system as a result of unfavorable eliminative conditions. In support of this also, is the fact that swabs taken from the interior of the nose during the first 24 hours after the onset of a cold are usually sterile.

The bacteriological factor, or factors in the etiology of the "common cold," whether primary or secondary, in the light of present knowledge, are: pneumococcus, B influenza, streptococcus, staphylococcus, B. Friiedlander, micrococcus catarrhalis, diptheroids, and B. pyocyaneus—or, some yet unidentified specific bacteriological organism.

There are some fifty odd strains of known streptococci, and there is some probability that the "common cold" may be caused by some yet unidentified strain of streptococcus, since the prodromal period, the onset, the systemic manifestations, the course of the disease, and the convalescence is similar to other streptococcic infections. Also in complications of the "common cold" such as otitis media and mastoiditis not infrequently pure strains of streptococci are found.

Why one person rarely ever has a cold and another has repeated colds, predisposing causes being considered, is explained as individual resistance. The internal mechanism of individual resistance is God given. When I say this I am referring to natural immunity. The external mechanism of individual resistance is acquired by the individual. It consists of a group of things: proper eating, proper habits of elimination, the right amount and the proper kind of clothing, education or re-education of the autonomic nervous system so that changes in temperature and humidity, whether hot or cold, dry or damp, causing physicological hyperemia of the nasal mucous membrane or skin never goes to the stage of stasis before reaction sets in. This is obtained by plenty of out-door exercise, plenty of fresh air, and subjecting the skin surface to graduated doses of cold water.

TREATMENT

Treatment of the "common cold" should be directed along two line: prophylactic treatment, and curative treatment.

Prophylactic Treatment: Having had nothing to do with the patient's posterity we cannot increase his natural immunity. Neither can we, in most cases, change his environment to more favorable climatic surroundings. We can inquire as to the frequency with which he has colds, and their usual duration. If he has frequent colds, or as many patients say "just one continual cold" we had best look for local or general predisposing causes and advise their correction. Determine the patient's occupation, whether he works indoors or out, if indoors the heating and ventilating arrangement. Investigate and regulate his habits of dress, eating, exercise, sleeping, bathing, and elimination. The prophylactic value of so-called cold vaccines is questionable. The work of Dr. William Park indicates it is of doubtful efficacy. He made a study of 1327 vaccinated cases against 3024 unvaccinated cases and found that the vaccinated cases had no greater immunity to colds than the unvaccinated cases.

Curative Treatment (Abortive): In the prodromal and serous stages we may use measures intended to abort the trouble. In the literature we find a jumble of drugs given intended to gain this happy end, with no definite reason for their use. I believe there is a rational objective at which to aim our treatment. Since we have in these stages a deranged nasal function due either to nasal stasis or nasal dryness, which if left alone is sure to have an added bacteriological factor in a short time, our treatment should aim to restore normal nasal function. This can best be done either by local drugs in the nose favoring a restoration of normal function, or by general measures favoring a restoration of normal heat and moisture elimination through the skin. If the atmosphere is cold and damp our treatment should be directed at two things: warm the skin and increase moisture elimination by this route, and dry the nose. The first of these can be accomplished in one of several ways: put the patient to bed in a warm room and regulate the humidity, or give the patient a hot drink and small doses of Dover's powder, or by hot baths, Turkish baths, light baths, or hot mustard foot-baths, actinotherapy, or ultraviolet light. Drying the nose can be accomplished by one of a number of local applications or certain drugs internally. Among local applications to gain this end are weak solutions of cocain, adrenalin, ephedrin, antipyrin, or mild astringents. Internally we may give calcium salts or atropin sulphate in minute doses in the form of coryza tablets or rhinitis tablets. Iodin prepara-

tions such as calcidin, are not indicated in aborting colds which are predisposed to by a cold damp atmosphere, because they increase the flow of mucous from the mucous membrane, but they have a very definite place in the next type which will be discussed. If the atmosphere which predisposed to or brought on the cold is hot and dry our treatment should also be directed along two lines: chilling the skin and decreasing moisture elimination by this route, and moistening the nose. The first of these can be accomplished in one of several ways: advising the patient to get out in the fresh air, saline laxatives, tepid baths and rest. The second can be accomplished also in several ways: soothing oils locally, hypertonic saline nasal douches, mild stimulants such as volatile oils—camphor, menthol, and eucayptol. Calcidin tablets internally will also accomplish this end.

In addition to the above in trying to abort the cold the patient should be advised to eat a light diet for a definite reason: the physiological hyperemia in the abdominal cavity necessary for digestión of a heavy meal will handicap a restoration of normal vasomotor coordination between the nose and the skin. The patient should also be given an antacid to restore normal alkalinity of the blood.

Curative Treatment (Late): After the cold has reached the muco-purulent stage we have an additional factor to consider the bacteriological. Our treatment here should be directed along three lines: aeration of the nasal passages, destroying or inhibiting the bacterial infection, and preventing complications.

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CASE REPORTS AND CLINICAL SUGGESTIONS

*ACUTE INVERSION OF THE UTERUS.

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GREENWOOD, MISS.

In choosing this subject for my paper this afternoon, I was prompted by two reasons: first, the extreme rarity of the condition; second, the disasterous result of such a complication in labor.

The infrequency of this condition gives sufficient interest to justify the reporting of all such cases.

There is a wide diversity of opinion among the writers as to the frequency of this condition. Kuster's estimate is 1 in 23,000. Zangemeister's estimate is 1 in 400,000. In 1,932,164 labors collected from the literature, there were 17 inversions.

There have been only 76 cases reported in the German literature in the past 25 years. J. Clifton Edgar thinks that 1 in 200,000 is a conservative estimate.

No doubt many cases occur that are never reported. Some cases seen by doctors are probably not reported for fear of unfavorable comment; others are probably seen by midwives, where the true condition is not recognized.

By inversion is meant a complete turning inside out of the uterus.

*Read before the Delta Medical Society, at Greenwood, Miss., April 9, 1930.

ETIOLOGY.

This condition is nearly always seen in primiparae, although a few cases occuring in multiparae have been reported. Before inversion of the uterus can occur there must be three conditions present:

1. A marked laxity or thinness of the uterine walls.

2. Pressure from above or traction from below.

3. A patulous cervical canal.

In a large percentage of cases of inversion, there will be found a fundal implantation of the placenta. Thus, with undue pressure from above and with the thinning from the placental implantation present there is a denting or cupping at this site which a contracting uterus will seize, as though seizing a myoma, and with successive contractions force the indented portion of uterus out of the cervix. With a fundal implantation and an adherent placenta, then traction on the cord from below would produce the same result. That fundal attachment is not always necessary is evidenced by the fact that cases of inversion have been reported where a placenta praevia was present.

Uterine inertia must be present. As one writer aptly says, "A firmly contracted uterus never inverts." While faulty technic must be responsible for a large number of these cases, with undue pressure from above, or traction from below, yet cases have been reported where the delivery of the child and placenta have both been spontaneous.

The cervical canal must be widely dilated, either from a natural or manual dilatation, or due to lacerations at the time of the birth of the child. Sudden delivery has been given as a cause, with precipitate delivery of the child and the placenta; also exertion immediately after delivery, such as severe straining or coughing.

Inversion usually occurs within an hour after delivery, when, due to great loss of blood and extreme shock, the case is recognized immediately, yet Peterson's case was not recognized for 12 years and Reeve's case for 25 years.

In the light of present day methods and technic of delivery we do not see how such a case could escape immediate recognition. Perhaps many cases of partial inversion, with a cupping or indentation, are never recognized, being treated as cases of excessive bleeding that is controlled when a contraction of the uterus is produced.

The mortality is given as varying from 12½ per cent in the hands of competent doctors with cases in hospital, to 50 per cent in cases handled by midwives in the home.

Hemorrhage is the cause of the greatest number of deaths, yet sepsis claims a large per cent, because every inverted uterus is certainly a potentially infected uterus. Thus, with the anemia present from loss of blood, the infecting organisms find slight resistance.

As the treatment, with all the asepsis possible, immediate replacement if possible with all efforts to cause a firm contraction of the uterus. In a hospital with a skillful operator, then if vaginal replacement is not possible, immediate laparatomy and abdominal replacement.

CASE REPORT.

Mrs. K., aged 27 years, Jewess, primipara, admitted to hospital at 7 p. m. having pains every 20 to 30 minutes. The pains were weak and of short duration.

Pains continued all night with very little progress. By 9 a. m. had three fingers dilatation, child in R. O. A. Patient pretty well worn out. Given morphin gr. 1/6, and had a short nap before noon. Between 12 and 1 o'clock pains started up again and became severe. Head had progressed as far as ischial spines and would come no farther. At three p. m. head still at ischial spines. I decided to do a forceps delivery. Patient etherized, forceps applied easily and child delivered with little difficulty. Cord to child rather short, bleeding rather profuse, patient allowed to come from under ether. In about ten minutes a large blood clot, plus placenta, was

expelled and as the placenta was expelled, the uterus everted and protruded from the vagina. The bleeding was terrific. I at once pushed the uterus back up through the vagina and with right hand inside uterus kneaded the uterus through abdominal wall with left hand until contration took place. Then I withdrew right hand and packed vagina with sterile gauze. Gave patient an ampule of pituitrin, also ampule of ergot. Got a firm contraction and bleeding stopped. I then carefully removed the gauze from the vagina and examined the cervix; found a bilateral tear. I then pulled down the anterior and posterior lips of cervix with dressing forceps, trimmed up the ragged edges and did an immediate repair; then repacked vagina and sent patient to her room.

The child was in good condition. The patient was badly shocked, I gave her 500 cc. 10 percent glucose solution intravenously; started a drip of glucose solution and applied external heat. She rallied nicely and by next morning was in good condition. The packing from the vagina was removed; no excessive bleeding. On the morning of the third day her temperature rose to 103° and she had a rigor. Lochia had a foul odor; had another rigor in four hours. I then took a 24 F catheter and perforated the end like a Dakin tube, sterilized the catheter and inserted same into uterus, as far as it would go and left it in situ. I injected 1 oz. 5 percent mercurochrome through catheter three times a day, the catheter serving a double purpose—the means of getting the mercurochrome into the uterus and also acting as a drain. The temperature remained high for two days, she had several rigors, then temperature began to subside, the rigors ceased and she made a nice recovery. Her stay in the hospital was 21 days. The lacerations in cervix healed by primary intention and subsequent examination showed cervix in good condition.

I think the cause of eversion in this particular case was a short cord—an adherent fundal attachment, plus a bilateral tear.

As the child was born, I think the short cord caused a pulling in of the fundus, then with the placenta separating slowly, the uterus inverted itself and as the blood clot and placenta were expelled with the cervix lacerated on both sides, the uterus everted itself.

Discussion of this paper brought reports of three hitherto unreported cases of inversion of the uterus, one by S. L. Brister, M. D., and two by T. B. Holloman, M. D.

A CASE OF ECLAMPSIA WITH SIXTY-ONE PER CENT ALBUMIN:: RECOVERY.

LOUIS LEVY, M. D.,

NEW ORLEANS.

The improvement in the treatment of eclampsia is marked and a patient's chances of recovery are greatly increased if known aids are taken advantage of. It is admitted that frequent examination of urine and blood chemistry and blood pressure readings are the essential examinations in the prevention of this complication of pregnancy and active treatment should be started when either deviates from the normal. It is also recognized that many cases of albuminaria can be successfully treated during the term of pregnancy and eclampsia avoided. At least, many cases of albuminuria can be treated until a living fetus can be delivered, terminating labor at that time and avoiding eclampsia. The following case will exemplify what can be done along these lines. This case, an out of town patient had no treatment and went from bad to worse until convulsions started and then she was placed in an automobile and rushed to Hotel Dieu, a three hour ride being necessary to make the trip.

CASE REPORT.

Mrs. E. P., LaPlace, Louisiana, a housewife, was admitted 9 a. m. March 3. She had had no previous illness of any severity at any time and had one child with no confinement complications.

Present Illness: The patient had missed menstruation about seven months ago but she can give no specific date, however, expecting delivery some time in April. Eight days before illness, the patient began to suffer with severe frontal headaches and to have general body swelling, especially in legs. She took purgatives and dieted self with no abatement in symptoms. March 3 she awoke with headache which gradually grew worse. Convulsion occurred in early morning followed by two more convulsions before arriving at Hotel Dieu. The patient was sent at once to delivery room, morphin, gr. ¼ with 1 cc. 25 per cent solution of magnesium sulphate administered at once. Blood pressure at this time was 172 systolic, 110 diastolic.

A catheterized specimen of urine showed 61 per cent albumin. Fehlings test showed the typical reaction that prompted the laboratory to report eclampsia.

Orders for immediate delivery were given. After usual preparation, manual dilatation and version done removing a live fetus that weighed less than three pounds. Ethylene was used as anesthetic. The fetus was immediately placed in incubator and its care entrusted to Doctor Signorelli.

Before leaving table, a duodenal tube was inserted and six ounces of Pluto water given. Another hypodermic of morphin and magnesium sulphate solution were given. The important note at this step is the immediate delivery before the morphin had time to terminate pregnancy. On treturn to bed the carbon dioxide combining power was estimated and found to be thirty-two per cent.

Alkaline treatment was instituted. Citrocarbonate was given by mouth and hypodermoclysis of 300 cc. of 0.5 per cent solution of sodium bicarbonate solution given every three hours. On the second day urine showed albumin thirty-five per cent with still many fine and coarsely granular casts: blood pressure 138 systolic, 98 diastolic. On the fourth day, albumin was reduced to fifteen per cent. Since that time, albumin gradually diminished until on the fifteenth day, the urine was albumin free.

For fear of alkalosis, alkaline treatment lessened after fourth day and normal saline solution was substituted for bicarb soda solution. Due to immediate cessation of convulsions and receding blood pressure, no spinal tapping was done. The diet consisted for the first few days of alkaline liquids. It was gradually increased until the patient is now on low protein anti-nephritic diet. Saline purgatives were given every other day for first nine days.

A CURIOUS PARADOX.—One of the curious features of modern trend in science is that as our mechanical methods of observation become more refined our use of the fundamental means of transmission and expression of ideas, language, becomes more and more slipshod. The very man who insists on triple distilled water, analyzed and re-crystallized compounds for his reagents, may express the ideas which are the fruit of his careful labor in a jargon that is clumsy, inexact, and at times almost unintelligible.

The steady trend in language, both spoken and written, has been downward while our scientific methods have been progressively refined. The ascent from tradition to experimental science has been paralleled by the transition from the Vedas to the yellow press. Shades of meaning readily distinguished in Sanskrit and in Greek were attenuated by the militant efficiency of the Romans. What farther heights might not Cicero have reached with all the delicate subtleties of Greek syntax at his disposal!

In the present day English the subjunctive has become an affectation, the dual has disappeared, the pluperfect and future perfect have joined the iguanadon and ichthyosaurus. The average scientific paper is couched in simple declaratives with perhaps a rhetorical interrogation or two, and is often replete with awkward expressions and grammatical crudities, which, if it were not for the watchful eye of the editor, would give a raucous contradiction to the purported meticulous accuracy of the contained subject matter. There is no reading more difficult than that of the average scientific journal, not so much because of the subject matter but because of the inept presentation of it. More attention to language as a scientific tool might well repay the effort.—New Eng. J. M., 202:690, 1930.

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NAMING SICKNESS

It is increasingly evident at the present day that there are many illnesses to which a name—a special label—cannot be attached. It does not follow necessarily that the type of disease, nor the character of the disorder is less clearly understood merely because it does not fall into a certain category or pigeon-hole. Many types of disease exist which the clinician has come to recognize as clear-cut entities. These, however, are frequently unnamable and unclassified in the sense that if information is wanted concerning them it would not be found in a text book, with a definite nomenclature. Alvarez has discussed this in regard to diseases of the stomach. He has studied a series of consecutive patients with gastric disorders and only a few of these people with such gastric manifestations could be categorically classified as having one or another of the accepted types of gastric disease. A disorder of the stomach such as occurs when there is chronic gall-bladder disease or when there are other types of reflex stomach symptoms may simulate and resemble very closely peptic ulcer, but thorough study of the case does not disclose characteristic findings of ulcer. The patient may have various types of enteritis, but it is not always possible by any means to make an accurate etiologic diagnosis. The tendency in medicine at the present time is to consider these common functional and sometimes organic disturbances with a broad minded spirit, appreciating that the doctor really knows what is the matter with the patient, although unable to label the disease with a one syllable, two syllable, or even three syllable word. This is distressing to the patient and the patient's friends, who feel that the doctor should be able to attach a specific term to the disease from which the patient is suffering. The physician appreciates this fact and is often wont to give a name to the disease to simplify matters. So long as this physician has the care of the patient, the procedure is perfectly just, but it often tends to confuse if the patient comes into the hands of another physician and tells him that the first doctor told her she was suffering from such and such a disease. It makes for certain difficulties which may sometimes be so disturbing that the diagnosis is not actually obtained. The thought occurs that it would be wise for every doctor to explain to the patient with the most punctilious attention to details the cause of illness, thus obviating the necessity of nominating the disease by a specific term.

CHRONIC STREPTOCOCCAL ILLNESSES

In the editorial above it has been pointed out that there are many disorders to which a specific name cannot always be given. This statement applies to the chronic streptococcal illnesses which are relatively common and which work in a way peculiar and bizzarre. A recent paper by Perry* calls attention to the many general illnesses, as well as local illnesses that are produced by streptococcal infection. In this thought-producing and idea-stimulating discussion, he notes that many of these illnesses are due to so-called focal infection in which invariably, although the infection is usually a mixed one, streptococci predominate. Frequently the signs and symptoms are merely those of vague and definite ill health. In other cases there may be indefinite dyspepsias or even more definite disease entities, such as chronic arthritis. However, it frequently occurs that certain individuals may harbor chronically diseases tonsils or apical dental infection and yet never develop any secondary manifestations indicative of injury produced by this local infection. Perry points out that it is very likely indeed that in these types of streptococcal sicknesses the disease depends not necessarily so much on the invading streptococcus but rather upon its mode of entry into the host and upon the host itself and especially in conjunction with previous attacks with various types of steptococci from which the host may have suffered. In other words, if the individual has been sensitized by the ubiquitous streptococcus, a reaction may be expected when streptococci of one or another type enter the body at some later date. It is useless in such cases to deal with them in the same way that one does with typhoid fever, in which disease we can get rid of the infecting organism, because the streptococci are found here, there and everywhere, and are likely to invade at any time the organism. The author points out that "the solution of the problem lies in the better understanding of bacterial allergy and immunity." Only when there has been discovered the difference between absolute immunity, which renders the patient safe, and the dangerous state of allergy—a perverted immunity, will be found a practical method of treatment of the streptococcal diseases.

*Chronic streptococcal illnesses, Lancet, May 10, 1930, p. 1009.

BILL S. 1171

The New Orleans Medical and Surgical Journal wishes to go on record as offering its very sincere congratulations to Senator Joseph E. Ransdell of Louisiana. It has been largely through his perseverance, industry and skill that this bill, which will establish and operate a National Institute of Health, has gone through Congress and in the past few days has been signed by the President. We can not help but feel pride that this bill is largely the personal achievement of Senator Ransdell, because we feel that it will be of tremendous benefit to medicine through the whole country.

For those slightly familiar with the bill it may be well to recall that this bill authorizes the present Hygienic Laboratories of the Public Health Service to be known as the National Institute of Health, with an appropriation of the sum of $750,000 for the construction and equipment of additional buildings at the present Hygienic Laboratories of the Public Health Service in Washington, D. C. The Secretary-Treasurer is authorized to receive, on behalf of the United States, various types of gifts for the study and investigation of research and fundamental problems of the diseases of men. Individual scientists may be appointed by the Surgeon General for carrying on work in this department. Facilities of the Institution are made available to the health authorities of States, Counties and Municipalities. From this very brief sketch of the bill it will be seen

that the Government is making adequate provisions for the maintenance of an institution, as well as for workers in this institution, where research may be carried out and disease itself studied without the limitations that necessarily fall upon those who are in private institutions.

Again we say that Senator Ransdell deserves the thanks of all physicians throughout the country.

THE LOUISIANA AND MISSISSIPPI STATE MEETINGS

Any one who had the good fortune to attend these two meetings would have been struck by their similarity in many respects. At both of the meetings there was an excellent attendance. At both of them there was an excellent scientific program presented to the members so that they might learn and acquire knowledge, and at both Shreveport and at Vicksburg the hosts of the two organizations did everything in their power to entertain and to treat hospitably their guests. It need hardly be said that the doctors of these two cities and their wives were most successful in their aims and purposes, as the guests all without exception reported having a most delightful time socially.

One of the most encouraging features of the Mississippi State Medical Association Meeting was the number of young men who appeared on the program. An organization which has men of this type coming on to replace the older men need never have any fear of dry rot occurring in its midst.

CHARITY HOSPITAL SURGICAL STAFF.

The regular monthly meeting of the Surgical Staff was held on May 21, 1930, Dr. A. C. King presiding as Chairman.

The meeting was opened by Dr. S. M. Blackshear who spoke on the treatment of mastoid infections in children up to three years of age. In this talk he stressed the matter of conservatism in the treatment of these cases. He also stressed the importance of the clinical picture, saying that the roentgen-ray might be used as an adjunct. The discussion considered such complications as lateral sinus thrombosis, septicemia, and brain abscess.

Dr. Blackshear's presentation was discussed by Dr. Amedee Granger, who showed slides of roentgenograms which presented certain characteristic findings in these cases.

Dr. Homer Dupuy was the next to discuss the presentation and restricted himself to infants under three years of age. He stated that these cases may be divided into two groups, the simple and the complicated types. The simple cases simply required incision and drainage, while the very serious cases had to be dealt with more radically.

Dr. S. B. McNair followed in discussion and reviewed the statistics of these cases over a period of one year, stating that there were thirteen deaths in forty-six cases operated upon.

The chairman next asked for new business, and Dr. Alton Ochsner entered a protest saying that rectal surgical cases should be admitted to the General Surgical Services rather than the G. U. Services; and he made a motion to this effect, which was seconded by Dr. John Pratt. The motion was passed, and the Chairman appointed a Committee consisting of Drs. Ochsner and Gage to look into the matter and report upon it.

Dr. James Reeves similarly protested that since jaw cases were referred to the Dental Department, this department should also treat carcinoma of the lip. Dr. Reeves' comment was discussed by Dr. Mims Gage.

The next order of business was a talk on the treatment of fractures in the Charity Hospital during the past forty years given by Dr. E. D. Martin. Dr. Martin's talk was made with the assistance of lantern slides. He showed the very first type of apparatuses and appliances used to treat fractures in the Charity Hospital. The evolution was carefully followed to the present day apparatuses.

Dr. A. C. King next showed a number of slides of various types of fractures treated by the modern day appliances with which he got very good results. He was followed by Dr. Muir Bradburn, who also showed some slides hurriedly.

The next order of business was the presentation of a surgical death. The case was that of a colored female, 31 years of age, who was admitted

to the hospital on March 21, 1930, and died four days later. Death followed the administration of 250 c.c. of 20 per cent sodium chloride solution, which was administered with the hope of relieving the paralytic ileus which resulted from intestinal obstruction. The matter of diagnosis was completely ignored, the discussion centering on the advisability of giving such concentrated solutions of sodium chloride. Dr. James Reeves stated that in his opinion he felt the administration of such a concentrated solution was probably dangerous, and finished by saying that he thought a 5 per cent solution was more than sufficient.

Dr. R. A. Cutting next discussed this phase and explained that such a concentration was used because of the success of some recent experimental work along these lines. In his discussion he named several authorities who have used this solution clinically and have used it effectively. Dr. Cutting stated that a 20 per cent sodium chloride solution was used because pituitrin and other drugs were found to be wanting. In this particular case, he stated, it was inadvisable to use splanchnic anesthesia, which had been proposed, because of the patient's low blood pressure.

Dr. Alton Ochsner next followed and stated that the work spoken of by Dr. Cutting has been performed in various places with good results. He was followed by Dr. Reeves and Dr. Blackshear in the discussion.

Dr. Loria next discussed this phase of the subject and stated that while 20 per cent sodium chloride had been used effectively clinically, not more than 40 to 75 c.c. was recommended at one time, and some authors recommended this not more than twice each day. The administration of such concentration of sodium chloride solution has been said to have a very profound stimulating action on the gastro-intestinal tract. Cases have been reported which were almost moribund, and who upon administration of 40 to 75 c.c. of 20 per cent sodium chloride solution had violent peristalsis with large bowel evacuations. These cases were very frequently transformed from a moribund state to one from which they finally recovered.

FRANK L. LORIA, M. D.

FRENCH HOSPITAL

The regular meeting of the staff was called to order on Friday, April 25, 1930 at 8:00 P. M., Dr. M. J. Lyons presiding. The minutes of the last meeting were read and approved. Those present at the meeting were: Drs. M. J. Lyons, E. L. Zander, E. Socola, F. Gallo, P. Graffagnino, R. L. Gordon, D. N. Silvermann, C. Cox, H. B. Alsobrook, W. R. Strange, A. M. Powe, M. L. Stadiem, H. V. Sims, Nolan K. Harvard, Geo. Feldner, C. Tardo, G. L. Smith, G. C. Anderson, L. L. Cazenavette, M. Lescale, J. F. Sicomo, J. J. Baron.

The report representing the patients discharged during the month of March 1930 was given by Dr. E. L. Zander.

The deaths for the month of March, 1930 were as follows: Mr. M., age 70, was admitted to the hospital complaining of pain in the right lower quadrant and suprapubic region. He was operated on, on the following day. The appendix was found to be subacutely inflammed and the cecum was adherent. The appendix was removed. The pre-operative diagnosis was subacute appendicitis with possible intestinal obstruction. Post operative diagnosis was subacute appendicitis. Urine was negative on day of admission but later showed a heavy trace of albumin. Patient did well for two days after operation, however, on the third day he started vomiting and rales were noted in the chest. Blood pressure 145-98. The patient's pulse was variable until fourth day after operation when it dropped to 70. Temperature went up to 104°. The patient died six days after operation. Final diagnosis was subacute appendicitis, post operative broncho-pneumonia and chronic myocarditis.

Miss G., age 8, was admitted complaining of pain in neck. She gave history of suffering from pain in back and lower extremities since the previous day. Physical examination showed a well-nourished child, acutely ill. The left side of the fact twitched and there was definite torticallis. Blood count was 15,250 and temperature 104° on admission. Specimen for spinal fluid showed practically pure pus. A later report from culture showed St. aureus. Patient received symptomatic treatment and a pediatrician was called in consultation. Patient did not respond to treatment and expired after three days. Diagnosis was staphlococcal meningitis.

Mrs. H., age 56, was admitted to the hospital January 24 and died March 15. Diagnosis was carcinoma of the breast with metastasis. Mrs. B. died four hours after admission. Diagnosis was acute nephritis. Other deaths occurring during the month were chronic myocarditis with decompensation and senility in a man 86 and Paget's disease, arterio-sclerosis, chronic myocarditis, senility, empysema, hypertension, hyperstatic pneumonia in a man 79.

These cases were presented by Dr. E. L. Zander and were discussed by Drs. P. Graffagnino, H. B. Alsobrook, R. L. Gordon.

Dr. H. V. Sims spoke on Gonorrhea in Women. Dr. Sims spoke of the ravages caused by this dis-

ease when neglected and of the necessity of early and adequate treatment. He outlined the method of treatment used by him; advocating the use of silver nitrate and in many cases the additional use of the cautery. The method of determining the presence of gonorrhea, the equipment necessary for treatment, and the technique used in the treatment of chronic and acute gonorrhea was thoroughly discussed by Dr. Sims.

This paper was discussed by Drs. P. Graffagnino, R. L. Gordon, M. J. Lyons, E. L. Zander and G. C. Anderson.

A letter from the American College of Surgeons, in which the French Hospital was officially notified that it was approved without restrictions, was read by Dr. M. J. Lyons.

This letter was briefly discussed by Dr. P. Graffagnino.

There being no further business the meeting adjourned.

E. L. ZANDER, M. D.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL STAFF MEETING.

June 9, 1930.

Abstract.—Fracture of the Head of the Radius. —Dr. J. A. K. Birchett, Jr.

Patient.—Colored, female, aged 48 years; occupation, cook, seen May 27, 1930.

Chief Complaint.—One week ago fell on front porch; threw out left arm to catch herself and felt intense pain in left arm from hand to shoulder. Thinks she fainted. Was put to bed and physician called. Physician thought elbow was sprained; by this time there was much swelling and it was impossible to flex elbow or move the wrist on account of pain. The arm was strapped to body at a right angle and liniment given. Swelling has not subsided and pain is very acute and almost constant.

Past History.—No operations; no serious illnesses. Last consulted a physician five years ago for rheumatism.

Family History.—Not remarkable.

Physical Examination.—Temperature 98° F.; pulse 88. Well developed and nourished. General examination negative. Excessive swelling in region of the left elbow and left forearm. Complaining of acute pain on motion.

Roentgen-ray examination shows fracture of the neck and head of the radius.

Comment.—Though previously regarded as rare, recent studies show that fracture in this location occurs not infrequently. It is due to: 1. Indirect violence, as from a fall on the outstretched hand and forearm, the force being transmitted through the radius, or a sharp abduction of the radius might cause such a fracture. A posterior dislocation of the elbow is usually accompanied by radical head or neck fracture. 2. Direct violence as from a blow or fall on the radius or a direct crushing of the elbow.

The fracture is intra-capsular if the orbicular ligament is not torn and there will be little displacement. The fragments may be displaced in any position or lie free in the joint.

The diagnosis is based on swelling over the head of the radius and the outer surface of the elbow. Voluntary supination or pronation is very painful, and crepitus may be felt. Fragments may be palpated.

The prognosis is better when the displaced fragments are exercised. Hitzrot states that impairment of function is likely in unoperated cases. In thirteen out of fifteen there was loss of half of rotation. Thomas reports that twelve out of eighteen non-operative cases either exhibited non-union, anylosis or impaired function. In eight of eighteen cases non-union resulted.

As to treatment, in those cases where little or no displacement has occurred, approximation may be obtained by strong supination and pressure on the head of the radius, placing the forearm at a right angle then immobilization with the forearm in hyperflexion and supination for three weeks.

Those fractures which have become displaced or are comminuted, with tearing of the orbicular ligament are impossible of accurate fixation and manipulation. If the fragments are allowed to remain displaced, excessive callus will form and malunion leading to permanent disability follow.

Therefore, experience has taught excision of the displaced fragments or the entire head of the radius. The fifth day after this procedure, passive motion is to be resorted to. If non-union of the fragments occurs after attempted reduction, then arthrotomy and removal of fragments is indicated.

Abstract.—Pseudomucinous Cysts of the Ovaries Involving the Appendix and Peritoneum and Simulating Malignancy.—Dr. G. M. Street.

Patient.—White, female, aged 63 years; admitted to hospital May 5, 1930.

Family History.—Negative for tuberculosis and cancer. One sister died from pernicious anaemia. Otherwise, nothing of interest.

Past History.—Not remarkable.

Present History.—Chief complaint is enlargement of abdomen and general soreness and discomfort. General weakness, loss of appetite and weight. Has been concious of enlargement of abdomen for past three or four weeks. No attacks of acute pain, but has occasional shooting pains in abdomen. Menopause fifteen years ago and no vaginal discharge since. Patient says she has had a "sluggish liver" for twenty years. Has no backache, no hemorrhoids, no headaches, no edema of lower extremities, never has fever or night sweats, very little constipation, no urinary symptoms except attacks of urinary frequency.

Physical Examination. — General examination not remarkable except for abdominal and pelvic condition. There is a large abdominal mass about the size of a seven months' pregnant uterus more to right than to the left side, but it can be gradually displaced to the left by gentle manipulation. There is apparently some fluid in the abdomen other than in this large mass which is soft and seems to be cystic. Bimanual examination shows that the uterus is free and moveable and not incorporated in the large cystic mass but pelvis seems to be filled with fluid. The cervix is smooth and not remarkable. Rectal examination negative. Reflexes normal.

Blood: Hemoglobin, 62 per cent; erythrocytes, 3,484,000; leukocytes, 7,100; differential leukocyte count, small lymphocytes, 32 per cent; large mononuclears, 1 per cent; polymorphonuclear neutrophils, 67 per cent with 33 immature forms; no malaria found; Wassermann, Kline and Young, and Kahn tests, negative. Urea nitrogen, 8.4 mg. per 100 c.c.; sugar, 105 mg. per 100 cc.

Urine: Negative except for a slight trace of albumin and rare hyaline casts.

Flouroscopic examination: Heart negative; slight dilatation of aorta; lungs clear; diaphragm normal. Barium meal swallowed well; no cardiospasm; stomach fills well, is pushed up from a mass below. Cap fills well, is small but appears normal; marked duodenal stasis. Impression of radiologist is that there is no pathology in the stomach or duodenum and that they are pushed up by the mass below. Six hour examination shows stomach empty and meal all in the colon, which appears to be normal.

Diagnosis of ovarian tumor was made and exploratory operation advised.

Operation.—On May 8, 1930, under spinal anaesthesia, incision from 1 inch below umbilicus to symphysis pubis. There is an enormous multiloculear cyst of the right ovary and a smaller similar cyst of the left ovary. There are about three liters of thick gelatinous material free in the abdominal cavity and adhering to every viscus in the cavity. The cysts are filled with the same material and cannot be emptied by aspiration. Incision had to be lengthened to well above the umbilicus in order to deliver the larger tumor. Both ovarian tumors removed and all the mucilaginous material scooped out of peritoneal cavity that could be removed.

The appendix was then inspected and found to be greatly distended and enlarged and of the same appearance as the ovarian masses. It was over two inches in diameter and six inches in length. Appendix was removed.

There is a small hard fibroid nodule in the fundus of the uterus which was not disturbed. The peritoneum is greatly thickened everywhere, especially in pelvis, and feels rough as though studded with thousands of hard tubercles. Peritoneum covering the abdominal viscera is also thickened and rough, red and congested. Gallbladder, liver, stomach, and spleen were inspected and found not remarkable except for the condition of the pertoneal covering as described.

The abdomen was closed without drainage. Patient made an uneventful post-operative recovery and was discharged from the hospital on May 23, 1930, the fifteenth post-operative day. She is to return to our patient department for roentgentherapy in the course of the next few weeks.

Tissue examination. — Pseudomucinous cystadenomata of the ovaries; mucocele of the appendix; pseudomyxoma peritone.

Comment.—Pseudomyxoma peritonei is most often seen in women and is usually associated with a ruptured pseudomucinous cystadenoma of the ovary. The condition is also seen in both men and women, secondary to the rupture of a mucocele of the appendix. Several authors have reported this condition associated both with pseudomucinous cystadenoma of ovary and with mucocele of appendix. The combination, however, is extremely rare and not many cases have been reported. In such cases, the cystadenoma, or the mucocele, or both, may be found to be ruptured. In all probability, in these cases, the mucocele of the appendix develops as a secondary condition following the rupture of the cystadenoma. In the case described the ovarian condition was much farther advanced and apparently older than the condition in the appendix.

Olshausen probably gave the first correct idea as to the means by which this condition originates. He believed that epithelial cells from the lining of the ruptured cyst were transplanted to the peritoneum, that they took root and continued to secrete the gelatinous material.

The treatment is surgical removal of the original cyst, the appendix, and as much of the gelatinous material as possible. Treatment by roentgen-ray after operation is recommended by Masson and Hamrick of the Mayo Clinic. They say "treatment by roentgen-ray after operation may prove of much value. Secondary operations may be necessary for further removal of mucoid material and to give relief from obstructive phenomena." They report that all of the cases described in a recent article received treatment by roentgen-ray or radium following operation.

The prognosis in pseudomyxoma peritonei must be guarded. Statistics show that complete recovery following operation and radiation therapy takes place in from 50 to 75 per cent of the cases. The others have recurrences or develop malignancy or adhesive peritonitis and intestinal obstruction or other complications which eventually cause a fatal outcome.

The immediate future following operative treatment is almost uniformly good.

Abstract.—Tuberculous Peritonitis.—Dr. L. J. Clark.

Patient.—Colored, male, aged 48 years; married; occupation, laborer. Admitted to hospital May 17, 1930.

Chief Complaint.—Fever; loss of weight and strength; sore throat; general malaise; abdominal pain; loose bowels. About two weeks before admission patient noticed that he began to have fever and occasionally loose bowel movements, with irregular pain in abdomen; losing weight and strength rapidly; appetite very poor. He also had a great deal of backache, low lumbar. Rapidly grew worse. The abdominal pains were vague and not always in the same location; more a general soreness. Later a very severe throat infection developed causing him to go to bed; called a streptococcic throat by the attending physician; throat rapidly cleared up although his original condition became worse. Next noticed that abdomen began to swell and had first diarrhea and then constipation. Fever was continuous, ranging from 100-102° F.

Past History.—Patient had had pleurisy and influenza; no accidents or operations; denies chancre but had had gonorrhea several times. For past three years patient had been a chronic sufferer from general pains and aches.

Family History.—Not remarkable. No history of tuberculosis, cancer or insanity.

Physical examination.—Temperature 101° F.; pulse 92, regular; respiration 42; blood pressure 120/70. Fairly well developed and poorly nourished. Appears very ill and weak. Oral hygiene poor; tongue badly coated; acutely red granular pharynx and tonsils. Heart rate accelerated, otherwise not remarkable. Lungs clear throughout. Abdomen distended, somewhat tympanitic; evidence of fluid; no masses palpated. Prostate slightly enlarged. Reflexes and glands not remarkable.

Blood: Leukocyte count, 6,500, with 75 per cent polymorphonuclear neutrophils, of which 20 are immature; no malaria found; Wassermann. Kahn, and Kline and Young tests negative. Widal test for typhoid negative. Blood culture on two occasions showed a streptococcus, non-hemolytic.

Urine showed trace of albumin; otherwise not remarkable.

Summary.—On account of the fever, irregular diarrhea and constipation, pains in abdomen and distension, and development of fluid, carcinoma and cirrhosis of the liver were to be considered, but the fever in such conditions is not usual except complications develop. Tuberculous peritonitis and abscess of the liver were more evident. A diagnosis of tuberculous peritonitis was made.

Treatment. — Twelve days after admission through a mid-line incision peritoneum was found to be much thickened, roots of intestines matted together and covered with tubercles, some fluid. Specimen was removed for diagnosis and abdomen closed. Oxygen was administered through a needle. Patient has improved considerably but continues to have fever and to be very weak. Appetite is good.

Prognosis.—On account of the undertermined origin and age, the prognosis is to be guarded. Exploration gave no clue as to the origin. In this particular case, I consider the prognosis bad. We must bear in mind that the prognosis in tuberculous peritonitis in all cases is not particularly unfavorable; mortality is quoted at 13 per cent.

Another factor that has a marked bearing on the prognosis is the fact that in many cases there are more or less extensive lesions elsewhere. Much could be added in regard to this condition but the most striking point here is that this case is very unusual for the age of the patient. Complete statistics are not available but a very small percentage of tuberculous peritonitis occurs in ages above fifty.

Microscopic examination of specimens from peritoneum shows areas of necrosis but no tubercles were found.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR

The calendar will be discontinued during July and August as most meetings have been dispensed with for the summer.

During the month of June the Society held one regular scientific meeting and one joint Clinical Meeting with the Charity Hospital Staff.

At the scientific meeting papers were read and discussed as follows:

A demonstration of chickens paralyzed by Jamaica Ginger was presented by Dr. J. H. Watkins.

Meningococcemia for Eight Months Following Meningitis Recovery

By.....Dr. I. I. Lemann and by invitation Dr. H. E. Teasley, Atlanta, Georgia

Discussed by Drs. Randolph Lyons, J. Birney Guthrie, C. W. Duval, John A. Lanford and closed by Dr. Lemann

Influenzal Meningitis is Amenable to Treament

By.....Dr. Charles J. Bloom

Discussed by Drs. John A. Lanford, J. Birney Guthrie, F. M. Johns, I. I. Lemann, John Signorelli and closed by Dr. Bloom

The Use of the Cisterna Puncture as an Aid in Diagnosis and in the Treatment of Intracranial Hemorrhage in the New Born

By.....Dr. Maud Loeber

Discussed by Drs. Walter E. Levy, M. P. H. Bowden, Ludo von Meysenbug and closed by Dr. Loeber

At the clinical meeting interesting cases were presented and discussed by the members.

The thirty day grace period on the third quarterly insurance premium will expire July 5. Members carrying this insurance must have their checks in by July 3 in order that we may get our check to the Home Office in Galveston on the due date. *Please send in your check at once.*

The last meeting of the Society this season will be held Monday, July 14, and will be the Second Quarterly Executive Meeting. The Society will then go into its summer vacation during July, August and September. The first meeting in the Fall will be held Monday, October 13.

Actual Book Balance: 4/30/30	$1,481.93
Receipts:	$2,026.97
	$3,508.90
Expenditures:	$ 947.19
Actual Book Balance: 5/31/30	$2,561.71

During May, 1930, 139 books have been added to the Library. Of these 46 were received by gift, 83 by binding and 10 from the New Orleans Medical and Surgical Journal. New titles of recent date are listed below.

With the advancing summer, the current work is lessening. This will afford the staff opportunity to attend to necessary record work and to prepare for the move in the fall.

NEW BOOKS.

American Laryngological, Rhinological and Otological Association—Transactions. 1929.

Rockefeller Foundation—Methods and Problems of Education. 1930.

American Medical Association—Hospital Service in the U. S. 1930.

Pottenger—Symptoms of Visceral Disease. 1930.

Granger—Physical Therapeutic Technic. 1929.

Gosney — Sterilization for Human Betterment. 1929.

Fishberg—Hypertension and Nephritis. 1930.

Wechsler—Neuroses. 1929.

Fowler—Tonsil Surgery. 1930.

Kroenig—Physics and Biology of Radiation Therapy. 1922.

Hirsch—Principles and Practice of Roentgen Therapy. 1925.

Treves-Barber — Treatment of Varicose Veins. 1930.

Berkeley—Gynecology for Nurses. 1929.

McKenna—Aids to Dermatology and Venereal Diseases. 1929.

Seuffert-Strahlen-Tiefen—Therapie. 1923.

Bertwistle—Radiographs of the Bones and Joints. 1924.

Comm. of Medical Education—Medical Education in Europe. 1930.

Iowa University—Studies in Medicine. 1930.

McNevin—Mouth Infections. 1930.

H. THEODORE SIMON, M. D.,
Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

LOUISIANA STATE PEDRIATIC MEETING MINUTES OF ANNUAL MEETING.

April 28, 1930.

The annual meeting of the Louisiana State Pediatric Society was called to order at 10 A. M. at the Shreveport Charity Hospital by the President, Dr. J. A. Crawford, of Lake Charles.

The following members were in attendance:

James E. Bailey, New Orleans.
James D. Baucum, Haynesville.
John K. Bullock, New Orleans.
Charles J. Bloom, New Orleans.
J. A. Crawford, Lake Charles.
Robert T. Lucas, Shreveport.
Emile Naef, Baton Rouge.
John Signorelli, New Orleans.
Maud Loeber, New Orleans.

Other doctors present:

Claude M. Baker, Minden.
Alexander C. Kirby, Little Rock, Ark.
M. S. Picard, Shreveport.
Chester L. Kitchen, Texarkana, Ark.
Paul H. Power, Pine Bluff, Ark.
Wyeth B. Worley, Shreveport.

In the absence of the Secretary, Dr. Emile Naef was elected Secretary pro tem.

The chair appointed the Nominating Committee, consisting of Drs. Signorelli, Bloom, and Bailey, after which the meeting proceeded with the scientific session.

Dr. J. K. Bullock, New Orleans, read a paper entitled "Certain Pediatric Aspects of Some of the Surgical Conditions in Infancy." The paper was discussed by Drs. Charles J. Bloom, John Signorelli, and J. E. Bailey.

Dr. Duval, who was to have presented a paper was absent.

Dr. Signorelli moved, duly seconded and carried, that the business session be transposed from the afternoon to the morning hours.

The minutes of the previous meeting read by the acting Secretary, were accepted as read. A letter from Dr. Charles Williams regretting his absence from the meeting was also read.

The new members admitted since previous meeting included Drs. Robert A. Strong, New Orleans, Cecil L. Lorio, Baton Rouge, Suzanne Schaefer, New Orleans and Theo. F. Kirn, New Orleans.

Dr. W. B. Worley, Shreveport, was then proposed for membership by Dr. R. L. Lucas; Dr. Paul Power, Pine Bluff, Ark., by Dr. C. J. Bloom, and Dr. Chester E. Kitchens, Texarkana, Ark., by Dr. M. S. Picard.

Dr. Bloom suggested that some suitable emblem of membership in the Louisiana State Pediatric Society be adopted. Dr. Signorelli suggested a certificate of membership. Dr. Lucas moved, duly seconded and carried that a committee consisting of the three officers of the Society investigate the advisability and choice of an appropriate emblem.

The Nominating Committee retired at the request of the Chair, and after a brief session rendered the following report:

For President, Robert A. Strong, New Orleans.

For Vice-President, R. T. Lucas, Shreveport.

For Secretary-Treasurer, Suzanne Schaefer, New Orleans.

Scientific Committee—Emile Naef, Baton Rouge; M. S. Picard, Shreveport.

It was moved by Dr. Signorelli, and duly seconded, that all nominations be made unanimous. Carried.

Dr. Signorelli moved that the question in Art. C, Section 3 of the By-Laws, pertaining to membership dependent on presentation of papers be modified to meet the requirements of an increased membership. The Chair requested that this matter be referred to the incoming officers.

It was suggested by Dr. Bloom that both fellow and associate membership be created in the Society. It was moved, duly seconded and carried, that the By-Laws be studied and revised by the incoming officers.

The business session then closed, 11:15 A. M., and the scientific session was resumed.

The scientific session reopened with a paper, "Epidemic Vomiting or Intestinal Influenza," by

Dr. R. T. Lucas, Shreveport. Discussion opened by Dr. M. S. Picard, followed by Drs. Signorelli, Baucum, Bloom, Kirby and Bailey.

Adjournment for lunch at 12 noon, when the Society was entertained at the home of Dr. Robert T. Lucas.

The meeting reconvened at 2 p. m. for clinical session at the Charity Hospital.

Dr. M. S. Picard presented cases in the children's medical ward as follows:

Dermatitis exfoliativa
Acute nephritis
Questionable abscess of lung and acute miliary tuberculosis.
Chronic intussusception

Presentation of cases by Dr. Worley:

Congenital heart disease
Typhoid fever
Diabetes

Presentation of cases by Dr. Guy Caldwell:

Osteomylitis, three healed cases.
Tuberculosis of the ilium
Potts disease
Flaccid paralysis of the lower extremities

The meeting adjourned at 5 p. m.

NEWS ITEMS.

Dr. H. Daspit, Dean of the Graduate School of Medicine of the Tulane University of Louisiana, attended the meeting of the American Neurological Association at Atlantic City, N. J., beginning June 9, 1930.

Dr. O. W. Bethea, Professor of Therapeutics with the Graduate School of Medicine of the Tulane University of Louisiana, delivered a series of addresses at the Medical Institute of Glasgow, Ky., June 4 and 5, 1930.

Dr. Amedee Granger, Professor of Radiology with the Graduate School of Medicine of the Tulane Universitv of Louisiana, attended the meeting of the American Medical Association at Detroit, Mich., and presented a paper on The Roentgen Examination of the Paranasal Sinuses and Mastoids before the Section of Otolaryngology.

Dr. O. W. Bethea, Professor of Therapeutics in the Graduate School of Medicine of the Tulane University of Louisiana, has recently been appointed a member of the Revision Committee of the next United States Pharmacopea.

THE HEALTH OF NEW ORLEANS.

During the week ending May 17 there was a total number of 164 deaths in New Orleans, with a death rate of 19.9, 13 of which deaths were in children under one year of age, in contrast with the death rate of 14.8 in 1929. During the week May 24 the total number of deaths was 139, giving a death rate of 16.9, and comparable to the same figures the previous year. The week ending May 31 showed total deaths of 145 and a death rate of 17.6, 10 of these deaths being in children under one year of age. During the corresponding week in 1929 there were 13 more deaths and a death rate of 19.2. The next week ending June 7 found 163 deaths reported with a death rate of 19.8, 14 of which were in children under one year of age. During the corresponding week in 1929 there were only 118 deaths and the rate was 14.3. During the week ending June 14, 145 people died in the City, giving a death rate of 17.6, comparable to 157 deaths with a death rate of 19.1 in 1929. In the first 24 weeks of the year the death rate in the City of New Orleans was 20.1 as contrasted with 20.1 in 1929.

Of the cities reporting a death rate for the year 1930, New Orleans is in the proud position of a second place, Memphis of all the reporting cities alone having a higher death rate than New Orleans. Nashville, which had a higher rate last year, as had Birmingham, have both fallen off considerably. The lowest death rates in the country seem to be in the cities in the Middle West, although some of the Eastern cities are also relatively low.

MEDICAL CLINICS IN CHICAGO.

Commencing on the eleventh of August and running until the twenty-second of this month summer clinics, sponsored by the Chicago Medical Society, will be held at the Cook County Hospital. The Chicago Medical Society also announces that they are publishing weekly in their bulletin the pathological conferences conducted by Dr. R. H. Jaffee at the Cook County Hospital. Those interested of these two activities of the Society may obtain full information by addressing the office of the Chicago Medical Society, 185 N. Wabash Avenue. The roster of these clinics is on file in the office of the Journal.

THE UNITED STATES CIVIL SERVICE EXAMINATION.

An open competitive examination will be held for the position of Senior Medical Technician (Pathological). Applications must be on file not later than July 9, 1930. The entrance salary is $2,000.00 a year.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

S. S. Lippincott, Editor

H. L. Rush, Associate Editor *D. W. Jones, Associate Editor*

FROM OUR PRESIDENT.

APPOINTMENTS.

Elsewhere in this issue appear the appointments for the coming year. It will be noted that the number of committees is less than usual, and the reason for this forms the subject of the President's first official communication.

LOOKING BACKWARD.

We have had listed, ever since 1906, a Committee on Medical Education, but, so far as the records go, there has been no activity of that committee, except that there is a notation in the minutes of the House of Delegates, 1929, that this committee made a report. The report itself was not published.

A committee to attend the Teachers' Association wandered into the list of committees in 1920. A search of the records fails to show that it has ever held a meeting—or attempted one.

A Committee on Hospitals also entered the list in 1920. It made a report to the 1927 meeting of the House of Delegates that showed worthwhile consideration of its duties, but except for a notation in the 1929 Transactions that it made a report—which was not published—at that meeting, it has left no further records.

The Committee on Necrology apparently came into existence in a rather remarkable way. At the 1923 meeting some resolutions on the death of Dr. Carroll Kendrick were introduced by a "Committee on Necrology." At some time later in the meeting, the President appointed such a committee. This action in appointing a committee that had already functioned, would appear to be from a desire to legalize what had already been done. In 1924, Dr. Rowland reported, as chairman of this committee, the names of two members who had died during the preceding session, and introduced a resolution making the Necrology Committee a standing one—which resolution, so far as the minutes go, failed to pass. The committee then went into retirement until 1927, when it presented a report stating that during the previous year "twelve of the most loyal and faithful and distinguished members of the Association" had died. Their names and former post office addresses were given. No expressions of regret, no mention of what they had done to earn all those qualifying adjectives. Just dead—*fini!* In 1928, it made a report, after which the House stood "with bowed heads" for a minute. The "report" was not published. This was the year we lost Dr. J. M. Buchanan, a man of the highest professional attainments, an ex-president who at the time of his death, as for many years previous, was serving as treasurer of the Association. The secretary, in his annual report to the House, made reference to his death. Finally, in 1929, there was another "report" that was not published. All of you remember what happened in 1930, when but for the ready thoughtfulness of Dr. Frizell there would have been no mention.

Perhaps the inertia, to put it mildly, of these committees is due to the fact that nowhere in the records can there be found the least intimation that any of them were ever authorized—the only reference to any of them in the minutes of the House of Delegates, which alone has power to create a standing committee, being Dr. Rowland's resolution regarding the Committee on Necrology in 1924. They were probably, certainly apparently, appointed at some time as special committees by some of the presidents, did not get removed from the list of committees at the end of the year, and were reappointed by subsequent presidents just because they were on the former list.

The Secretary gives it as his opinion that they were "created from time to time" by resolutions and "express the will of the house," but is unable to produce the resolutions, in the absence of which these committees are non-existent, unless the President chooses to appoint them from year to year as special committees. This year he does not choose to do so, seeing no reason for carrying so much dead wood.

But this necessitates readjustment to care for at least one duty that has been generally neglected in the past, the respect due our departed brothers. The information necessary for its proper performance can be best collected through the Secretary's office, as can be readily seen by anyone who will take the trouble to refer to any copy of the *Transactions* for several years proir to 1919, when the matter was left entirely in the hands of the Secretary. Here will be found each year, in the front of the book, immediately following the lists of officers and committees, a page or pages, dedicated to the memory of our dead. Such memorials are far more fitting than those produced in recent years,—a mere mention of names, hidden in the minutes of the House of Delegates.

SUGGESTIONS.

But since we now have an Historian, it seems fitting that the refinement and presentation of the raw material for such memorials should be put in his hands. It is, therefore, requested that the Secretary collect this information yearly and

transmit it to the Historian, to be by him incorporated in a fitting memorial for presentation at the annual session and for a matter of record.

E. F. HOWARD.

DESOTO COUNTY MEDICAL SOCIETY.

Dr. L. L. Minor, Secretary of the DeSoto County Medical Society, reports as follows: "The meeting at Vicksburg was a distinct success in every respect. The program and the entertainment was all that could be desired. The physicians of the Issaquena - Sharkey - Warren Counties Medical Society were ideal hosts. A number of those in attendance were willing that Vicksburg should be chosen as a permanent meeting place of the Association.

"From this County, Dr. A. G. Weissinger of Hernando was on the nominating committee. Dr. A. L. Emerson of Hernando was elected fraternal delegate to the Tennessee Medical Association. Dr. L. L. Minor of Route 4, Memphis, Tennessee, was elected councilor for the Second District. From this Second Councilor District, Dr. J. C. Culley was elected President-Elect and Dr. P. W. Rowland, Historian. Both of these gentlemen are from the city of Oxford.

"Dr. E. F. Howard of Vicksburg, our new President, will make an ideal executive officer. Our retiring President, H. A. Gamble, and President-Elect J. C. Culley are out-standing members of our Association also.

"Dr. J. Harvey McNeill, sometime President of the Mississippi State Board of Health, was recently at his home in Olive Branch."

STATE APPOINTMENTS.

Shortly before the adjournment of the Mississippi Legislators, the following appointments of Governor T. G. Bilbo were confirmed by the Senate:

Dr. R. H. Cranford, Superintendent of the South Mississippi Charity Hospital at Laurel.

Dr. C. D. Mitchell, Superintendent of the Insane Hospital at Jackson (re-appointments).

Dr. M. J. L. Hoye, Superintendent of the East Mississippi Insane Hospital, Meridian (re-appointment).

Dr. Willis Walley, Superintendent of the Jackson Charity Hospital.

Drs. W. A. Dearman, Gulfport; W. H. Frizell, Brookhaven, and John Darrington, Yazoo City, members of the Mississippi State Board of Health.

RUSH'S INFIRMARY.

The regular monthly meeting of the Attending and Visiting Staffs of Rush's Infirmary, Meridian, was held on June 5. The scientific program included:

1. Ruptured Ulcer of the Duodenum.
   Report of Case—Dr. L. Hart.
   Report of Case—Dr. W. W. Reynolds.
   Discussion—Dr. J. H. Rush.
2. Osteo-Chondritis Desiccans of Knee Joint.
   Report of Case (Open Operation)—Dr. Leslie V. Rush.
   Orr Treatment of Osteomyelitis. Presentation of Case—Dr. Leslie V. Rush.
3. Selected X-Ray Studies—Dr. C. R. Stingily.
4. Hospital Analysis.

The meeting closed with a lunch.

Dr. Julian T. Bailey is President of the Staff and Dr. H. Lowry Rush is Secretary.

EAST MISSISSIPPI MEDICAL SOCIETY

Dr. H. Lowry Rush, Secretary, reports that the regular meeting of the East Mississippi Medical Society was held in the dining-room of the Elks' Club, Meridian, June 19. A very interesting and instructive program for the meeting was arranged as follows:

1. Indications and Contra-indications for Tonsillectomy—Dr. J. S. Hickman, Philadelphia.
   Discussions—Drs. A. L. Majure and A. G. Touchstone.
2. The Mind Doctor—Dr. C. R. Bennett, Meridian.
   Discussions—Drs. M. J. L. Hoye and T. G. Cleveland.
3. Peritonitis—Dr. W. G. Gill, Newton.
   Discussions—Drs. T. E. Royals and C. J. Lewis.
4. Complications and Treatment of Specific and Puerperal Pelvic Infections—Dr. F. J. Martin, Meridian.
   Discussions—Drs. E. B. Key and P. E. Holaday.

Dr. and Mrs. T. L. Bennett, Meridian, announce the birth of a son, Terry Lee Bennett, Jr. on May 13th.

Dr. Farris J. Martin and Miss Myrtis Catharine Germany, R. N., were married in Meridian May 19. Dr. Martin is at present house physician at the Matty Hersee Hospital, Meridian.

Dr. E. W. Mackey, formerly of Purvis, has recently located in Meridian and has offices in The Renfroe Building. His practice is limited to the diseases of the eye,ear, nose and throat.

THE HISTORIAN.

"Dr. P. W. Rowland of Oxford has sent me his resignation, and I have appointed Dr. J. S. Ullman of Natchez to fill the vacancy until the next meeting of the House of Delegates. In his letter of resignation Dr. Rowland states that he had been approached on the subject, before the nominating committee reported, and that he had said he could not undertake the work. He was not present at the election. This explanation is made in justice to Dr. Rowland."

E. F. HOWARD.

WOMEN'S AUXILIARY.

Mrs. L. L. Polk, Purvis, President, and Mrs. D. J. Williams, Gulfport, Parliamentarian, represented the Women's Auxiliary of the Mississippi State Medical Association as delegates to the Women's Auxiliary of the American Medical Association at its recent meeting at Detroit. Mrs. Polk and Mrs. Williams plan to return by way of Toronto, Niagara Falls, New York, and Washington, arriving home about July 15th.

BOLIVAR COUNTY.

Dr. C. W. Patterson, Rosedale writes as follows:

"In reply to your letter will say that it will give me great pleasure to assist in anything for the good of our Association so you can count on me to do everything within my power.

"It might be of interest to know that, at the May meeting of the Board of Supervisors of Bolivar County, the donation to the King's Daughters Hospital here was discontinued, but was renewed at the June meeting after earnest solicitation by numerous representative citizens who appeared in mass before the board. After the renewal of funds from the county the Town of Rosedale agreed to give a liberal donation which will enable the King's Daughters Hospital of Rosedale to continue functioning as in the past."

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY.

The joint meeting of the Fifth District Medical Society of Louisiana and the Issaquena-Sharkey-Warren Counties Medical Societies, at Monroe, La., on June 10, was an outstanding, pleasant occasion. The embers of the Fifth District Society, with Dr. C. L. Mengis, President, and Dr. F. P. Rizzo, Secretary, were most delightful hosts. The scientific program included the following:

Injuries to the Head and Spine—Dr. Gilbert C. Anderson, New Orleans.

The Early Diagnosis of Incipient Pulmonary Tuberculosis—Dr. Sam Hobson, New Orleans.

The Clinical Use of Applied Electrocardiography—Dr. J. B. Vaughan, Monroe.

Personal Experiences with the Peptic Ulcer Problem—Dr. Daniel N. Silverman, New Orleans.

Fundamentals in the Induction of Regional Anesthesia, Including Subarachnoid Block—Dr. James E. Walsworth, Monroe.

All of the papers brought out much discussion.

The entertainment features of the meeting included a barbecue luncheon at Sterlington, visits to the power plant, carbon black industries, gas fields, and gas pumping station, at Sterlington, and a fine banquet at the St. Francis Sanitarium. The business and scientific meetings were held at the St. Francis Sanitarium.

The members of the Issaquena-Sharkey-Warren Counties Medical Society are looking forward with much pleasure to the joint meeting of the two societies to be held in Vicksburg in December.

Plans are now under way for the July meeting of the Society to be held in Vicksburg, July 8. The program will be in charge of a committee composed of Drs. W. H. Cooper, Catchings; C. J. Edwards, Vicksburg; M. J. Few, Rolling Fork; G. W. Gaines, Tallulah; H. H. Haralson, Vicksburg; P. S. Herring, Vicksburg; and E. F. Howard, Vicksburg.

NORTHEAST MISSISSIPPI THIRTEEN COUNTY MEDICAL SOCIETY.

Dr. James M. Acker, Jr., Secretary, furnishes the following:

The second quarterly meeting of the Northeast Mississippi Thirteen County Medical Society was held at the auditorium of the high school building, Houston, on June 17, beginning at 2 P. M.

The program:

Meeting called to order—President F. M. McRea.

Invocation—Rev. C. G. Hamilton.

Some Common Urinary Lesions—Dr. M. Q. Ewing.

Discussion opened by Drs. Morris and Anderson.

Is the Standard of our Profession Being Elevated?—Dr. E. K. Guinn.

Discussion opened by Dr. G. S. Bryan.

The Management of the Heart in Acute Infections—Dr. O. S. Warr, Memphis, Tenn.

Discussion opened by Drs. Dean and L. C. Feemster.

Toxemias of Pregnancy—Dr. S. K. Gore.

Discussion opened by Drs. Eason and J. A. Donaldson.

Business session.

Immediately following the scientific session, the doctors of Houston entertained the members of the Society and guests with a banquet in the home science hall of the Houston high school.

The next meeting of the Society will take place at Corinth on Sept. 16.

PIKE COUNTY MEDICAL SOCIETY.

Dr. I. E. Stennis, Secretary of the Pike County Medical Society, writes as follows:

"I thought a history of the present Pike County Medical Society might interest you.

"The Society was organized April 4, 1929, with Dr. L. W. Brock, McComb, as president, and Dr. I. E. Stennis, McComb, secretary.

"At that time there were 26 practicing physicians in the county. When we applied for our charter, we had 25 charter members. A short time after we organized, Dr. W. C. Wallace moved from Osyka to Bogalusa, La. At the February, 1930 meeting, the Society elected Drs. H. K. Butle and J. M. Curtis of Summit, honorary members, both having retired from practice some years ago.

"On December 5, 1929, the following officers were elected for 1930: Dr. L. W. Brock, president; Dr. G. W. Robertson, Magnolia, vice-president; Dr. I. E. Stennis, secretary and treasurer.

"Since the Society was organized, we have lost three members by death—two active members and one honorary member. Dr. H. A. Wells died Sept. 19, 1929; Dr. E. R. Gordon died February 18, 1930; and Dr. J. M. Curtis died May 23, 1930.

"Since we organized, three doctors have located in the county—Dr. W. O. Biggs, Osyka, and Drs. W. F. Cotten and G. S. Daly, McComb. We now have 25 active members and we meet once each month. I believe the largest number that has attended any one meeting was 22. Our average monthly attendance is about 75 per cent of the membership roll. Every registered physician in the county is a member of the Society, and every member paid his dues in January.

"I do not believe any of the doctors in Pike County have retired from practice since we organized, but you know most of the doctors smoke, and since the Mississippi Legislature put a special tax on our smokes, raised our privilege tax 100 per cent, and put another cent on our gasoline tax, it looks like some of us will have to retire in order to make a living."

The Pike County Medical Society is certainly to be congratulated upon the excellent showing made in the little over a year of its existence. Many of the members of much older societies could well take example as to interest and attendance at meetings and the prompt payment of dues. The Society must have some real officers.

EAST MISSISSIPPI STATE HOSPITAL.

The list of delayed reappointments from Governor Bilbo given out May 31 has perhaps caused some disappointment among aspiring candidates for official seatings in the various state institutions, but the entire personnel of the East Mississippi State Hospital expresses a genuine satisfaction in appraising the reappointment of Dr. Hoye as Superintendent. Dr. Hoye has held this office for the past twelve years and anyone familiar with conditions prior to that time has only to glance at the institution as it stands today to be reminded of the remarkable development that has taken place under his leadership,—grounds beautified, new buildings erected, higher standards of hospital management instituted, and a service rendered to humanity that is being praised unceasingly by hundreds of Mississippi citizens who have felt the humanitarian influence of the institution in this community. We are proud of Dr. Hoye's leadership and have ample reason for assuring the people of East Mississippi that no mistake has been made in his reappointment.

By virtue of the 1928 legislative appropriation, the East Mississippi State Hospital is about to celebrate the opening of two modern fireproof buildings that will add greatly to the efficiency of hospital operation.

One building houses a modern power plant designed to give uninterrupted service in providing heat, light and power to the entire plant, replacing an old unit which was constantly in need of repair and wholly unreliable.

The other building houses an up-to-date ice manufacturing and refrigerating plant of the latest design, as well as a scientifically lighted and ventilated dining room, kitchen and bake shop. The plant was designed to take care of the expanding needs of the hospital for the next fifteen years. We are glad to make the statement that during the past six months, while the entire state is reporting large numbers of cases of influenza, typhoid and smallpox, our hospital population of over 800 patients has not developed a single case of typhoid or smallpox and only five cases of influenza all of which were of a very

light form. We adhere very strictly to routine vaccination of every patient against typhoid and smallpox and attribute our record to that fact.

Dr. and Mrs. Wm. J. Cavanaugh have just returned from a two weeks visit with friends and relatives in Louisiana, Texas, and Oklahoma. Dr. Cavanaugh attended the Annual Alumni Home-Coming of the University of Oklahoma May 29 and 30 and besides meeting old acquaintances visited some very instructive clinics.

Dr. Hoye attended the International Congress of Nervous and Mental Diseases held in Washington, D. C., and reported a most inspiring and instructive conclave. The recent advances in the realm of nervous and mental diseases foreshadow a rapidly developing consciousness of the universal importance of this branch of medical science.

C. ROLLAND BENNETT, M. D., Meridian.

VICKSBURG SANITARIUM

The regular monthly meeting of the Staff of the Vicksburg Sanitarium was held on June 9. Special case reports were made as follows:

(1) Pseudomucinous Cysts of the Ovaries Involving the Appendix and Peritoneum and Simulating Malignancy—Dr. G. M. Street.

(2) Carcinoma of the Bladder—Dr. A. Street.

(3) Fracture of the Head of the Radius—Dr. J. A. K. Birchett, Jr.

(4) Tuberculous Peritonitis—Dr. L. J. Clark.

(5) Pyelitis—Dr. S. W. Johnston.

Selected radiographic studies of the month were demonstrated as follows: Fracture of the Femur, Open Reduction; Pulmonary Tuberculosis (two cases); Cholelithiasis (two cases); Nephrolithiasis.

It was announced that a department of Periatrics would be opened on June 15, with Dr. Guy C. Jarratt, recently from the Children's Memorial Hospital, Chicago, in charge. Dr. Jarratt was elected to Staff membership.

SOUTH MISSISSIPPI MEDICAL SOCIETY.

A meeting of the South Mississippi Medical Society was held at the Nurses Home, Charity Hospital, Laurel, on June 12, at 3 P. M., after a business meeting a scientific program was carried out as follows:

1. The Care and Handling of Acute and Chronic Para-Nasal Sinusitis—Dr. Fern Champenois, Hattiesburg.

2. Eversion of the Uterus—Dr. George D. Mason, Lumberton.

3. Urological Problems of Interest to the General Practitioner—Dr. Julian T. Bailey, Meridian.

4. Anhydremia—Dr. F. G. Riley, Meridian.

5. Abruptio Placentae—Dr. J. S. Gatlin, Laurel.

Dinner was served at 6:30 P. M.

ANDERSON INFIRMARY.

The regular monthly meeting of the Staff of the Anderson Infirmary, Meridian, was held on June 13 with Dr. H. F. Tatum, President, presiding. Reports of hospital deaths, were made as follows:

1. Hemorrhagic Disease—Dr. H. S. Gully.

2. Bichloride of Mercury Poisoning—Dr. W. Jeff Anderson.

Dr. Seale Harris, Birmingham, Alabama, presented a special paper on Curing the Ulcer Patient. The meeting closed with a lunch.

JOHN FRANK AYCOCK.

Dr. John Frank Aycock died at his home in Calhoun City, May 17, at age 43. He had been ill for 15 months.

Dr. Aycock was a graduate of the Memphis Hospital Medical School in the class of 1913, and had practiced continuously in his native county until about a year ago. He was active in fraternal circles and a member of the Baptist Church. He is survived by his widow, one daughter, Frances Louise, one son, James, by his father and mother, Mr. and Mrs. W. J. Aycock of Derma, four brothers, Dr. W. J. Aycock, W. L. and S. S. Aycock, of Derma, and B. D. Aycock, of Jonesboro, Ark., and three sisters, Mrs. H. E. Howard, of Derma, Mrs. W. R. Hill, of Hollandale, and Mrs. Tom Pryor, of Calhoun City.

STATE ASSOCIATION APPOINTMENTS

Chairmen of Sections: Medicine, Dr. W. H. Anderson, Booneville; Surgery, Dr. T. P. Sparks, Jackson; Hygiene and Public Health, Dr. J. T. Googe, Meridian; Eye, Ear, Nose and Throat, Dr. L. S. Gaudet, Natchez; Radiology, Dr. G. P. Sims, Gulfport.

Committee on Scientific Work: Dr. T. M. Dye, Clarksdale; Dr. E. L. Wilkins, Clarksdale; Dr. J. K. Avent, Grenada.

Committee on Public Policy and Legislation (for three years), Dr. Henry Boswell, Sanitorium. The other members of this committee are Drs. D. W. Jones and F. J. Underwood, Jackson.

SECTION ON EYE, EAR, NOSE, AND THROAT.

The section on Eye, Ear, Nose and Throat, Dr. C. A. McWilliams, Gulfport, Chairman, presiding, was opened at the auditorium of the Carnegie Library at 9 o'clock A. M., Wednesday, May 14th, 1930.

Meeting called to order by Dr. McWilliams.

CHAIRMAN'S ADDRESS.

Last year Dr. Frizell suggested that we always have a Chairman's address, since all the other sections had been having one. I know Dr. Wilkins instituted that part of the program, so instead of preparing a Chairman's address like some of them on some scientific subject, I thought it would be better probably, especially for some of the new men who have just come in to the State, to outline a little bit of the history of our Section.

I remember in 1921 the first meeting of the State Association that I attended was in Laurel. Dr. Howard, Dr. Adkins, Dr. Guyton and myself were the only eye, ear, nose and throat men there. Dr. Lynch read a paper on Bronchoscopy, which was the only eye, ear, nose and throat paper in the section. I think the only thing we got out of the meeting, with the exception of that paper was just standing around telling jokes, but we had a little meeting there and appointed Dr. Howard and Dr. Adkins, if I remember correctly (they were the politicians of the bunch) and they went before the Councilors and they agreed to give us a special section, with the understanding that we would furnish the general section with two papers of a general nature. Well, this worked out mighty well I think, because since then our section meetings have grown, and last year we had a very large attendance in Gulfport, and I think this year we probably might have had more of the general men here if we had had our meetings in the same building with the general session, or very close to the general meeting. This is an ideal place to have a meeting, but we should have had it a little bit closer to the general section. However, that is something to bring up later on.

I know that the spirit of co-operation and friendship among the eye, ear, nose and throat men has grown in the last few years that we have been having these special meetings. Speaking for myself, it has meant a whole lot to me to know the men all over the state who are doing special work, and in neighboring states, and I hope that we will continue to have these special meetings and that nothing will come up to cause them to be dropped from the program. Of course, I think one thing that will keep us associated with the general session will be the papers that we read before that body. Now this year there was a little conflict in the program, and whoever is appointed chairman next year should try to avoid this. Of course the President of the Association always appoints the chairman, and the chairman in turn gets up the program. Well, I got up the program with the two papers to be read before the general session, and when I sent it in to Dr. Dye, he said we could not have it the first day because Dr. Shands did not want it to come before the Surgery Section, so we put it before the Medical, which really suits us better.

This is probably all that I think ought to be brought up before this section, but I would like suggestions from any one as to the program for next year. I have tried to get as many of the new men on the program this year as possible. Of course, we had to have one old man, so we invited the oldest man in the Association—Dr. Howard—to represent the old men. All the other men on the program are newcomers to the state, and there are a few men who are doing special work who have not been on the program and I would like to suggest that the chairman next year look over the list and get these new men to read papers, because after all I think the man that reads a paper really gets more benefit from the paper than anybody else, because the papers that are read by men from the smaller towns and who do not have hospital facilities and who can't present anything that is original, derive more help probably than anybody else. We want to develop the men in this state so they can present papers. The Southern Medical Association, I understand, has more trouble in getting somebody from Mississippi to appear on the program than any other state in the South. They say that there are fewer men in the state that will present papers, and appear on the Southern program than in any other state. I understand that they have a rule that they invite one man from each state to appear on the program, and they always try to get somebody from Mississippi, but if you notice, it is very seldom that a Mississippi man is on the Southern program, or on any of the programs, but it is really our own fault. If we can get the men interested, especially if they can start in writing papers

for the Mississippi State Medical Association, it will get them interested and get them to read the papers and give them confidence so when they are asked to appear on the Southern programs they will feel like doing so. If there is anything that any one wants to bring up as to the way in which we can run the section better, or any suggestions at all I will be glad to have them.

Dr. D. C. Montgomery (Greenville): Has the Secretary a complete roster of the eye, ear, nose and throat men of the State?

Dr. McWilliams: That is one thing I thought we really should get up. In getting up these discussions, I had to use the Red Book and there are so many new men that I really over-looked putting some of them on the program. I think it would be a good idea if somebody would get up a complete list of all the eye, ear, nose and throat men.

Dr. Montgomery: I would like to put that in the form of a motion, that the Secretary be instructed to write to the President, or Secretary of each County Association or Group Society, giving his name as Secretary, and ask them to ask the eye, ear, nose and throat men to write in so that we may get a register of this section. This is in the form of a motion.

Dr. E. F. Howard (Vicksburg): Did he specify what Secretary?

Dr. McWilliams: When we first organized we had a Secretary. It is a good idea to have a permanent secretary. If we have some one different every year, they do not have any responsibility.

Dr. Howard: I have had it in the back of my head for a long time, but being old and slow I naturally haven't brought it up. I would suggest that while we can not very well elect a chairman, because that is one of the forms of graft that the President of the Association hangs on to very closely we can at least elect a permanent secretary whose duty it will be to get up all information and assist whoever is appointed chairman. I remember one year we went to the extent of electing our own chairman and our own secretary. Then the President appointed another chairman, but fortunately Guthrie, Adkins and myself happened to be good friends, and we just got together and ran the thing, and I imagine we will always do it. I would like to ask Dr. Montgomery to amend his motion to read that we elect a permanent secretary.

Dr. McWilliams: In the discussion of this suggestion that we elect a permanent secretary and instruct him to make the list and help each chairman that comes into office, I would like to say that I have been chairman twice, and I feel that the first time I made a big mistake by having ten papers on the program. I figured that four of them would be absent, and all of them came and I had more papers than I could take care of, and I had to run over into the afternoon, but I think it is a good idea. Is there any discussion?

Dr. Geo. E. Adkins (Jackson): May I suggest that if we do elect a secretary, which I think would be a good thing, that we elect him now, and ask the President, whoever he is, to notify the secretary just as soon as he appoints a chairman of the section, because frequently we do not know who the chairman is.

Dr. Howard: You can get that in the next issue of the New Orleans Medical Journal, if you will read it.

Dr. McWilliams: Is there any other discussion? If not, all in favor of the motion to elect a permanent secretary will say aye. Motion carried. Nominations in order.

Dr. Howard: It gives me great pleasure to nominate Dr. Montgomery for that job.

Dr. Montgomery: I would like to nominate a man who has been accustomed to work in this section for a great many years—Dr. Howard—

Dr. Howard: I should have made the motion that the nominations be closed and the chair cast the vote.

Dr. McWilliams: I think that is in order and we will cast the vote for Dr. Montgomery.

Dr. McWilliams: In the discussion of the papers, I want to extend the privileges of the floor to the visiting Doctors, because I think we get little points that they have found beneficial to them, and I would like to call on anybody who would like to, to discuss these papers, and I would also like to request that you come up in front and give your name to the stenographer in order that the discussions may appear in the proper form.

BOOK REVIEWS

Hypertension and Nephritis, by Arthur M. Fishberg, M. D. Philadelphia, Lea & Febiger. 1930. pp. 566.

This very complete volume presents detailed information regarding these two very important subjects. The content is well arranged, authoritively presented and clearly written.

Beginning with a discussion of the pathological physiology of renal function, the various renal function tests are explained, discussed and evaluated. The author recommends and uses the simple concentration test in preference to all others.

Urinary findings are then presented, followed by a complete exposition on edema, its pathogenesis and treatment, and uremia. Arterial hypertension is dealt with in all its phases.

The author's classification of Bright's disease is a pathologic one, and while not as simple as some others, does seem to be very inclusive. All the divisions are fully explained, with practical recommendations as to therapy.

Lastly follow a four-chapter presentation of the problems of essential hypertension. The volume is completed with a chapter on renal and hypertensive disease in pregnancy.

Certainly the work should interest every physician. It is not only a compilation of all the knowledge on the subject but a ready, practical reference book for the treatment of those common conditions of ever-growing importance.

WILLARD R. WIRTH, M. D.

The New Psychology of the Unconscious, by C. W. Valentine, M. A. (Cantab.), D. Phil. (St. Andrews). New York, The Macmillan Company. 1929. pp. 162.

A book well written revealing to us in part the new psychology of the unconscious. Between its covers are found a blending of the old and the new interpretations of our unconscious psychological reactions. As the author states, he has tried to give as clear an exposition as is possible, in a short space, of such a complex matter as the new psychology. This he has succeeded in doing. It is largely psychoanalytical in character with psychoanalysis treated in a more comprehensive and commonsense manner than is found in most books dealing with this topic. It is healthy and refreshing to read that while he rather concedes sex enters into the associated situations he makes no attempt to over-supply the reader with that phase of the topic under analysis. He rather cautions against the recklessness of directly injecting sex into the treatment.

While a valuable asset to the library of students of psychology and physicians, this book in the hands of the neurotic, suggestible and unstable type of the herd would possibly suggest fixations or project further any tendency to a subjective analysis thereby establishing psychopathological situations. A bibliography at the end of the volume lists the names of students of psychology and psychopathology well known in the scientific world.

WALTER J. OTIS, M. D.

Malaria, by D. Drysdale Anderson, M. R. C. S., 8, R. C. P., D. T. M. & H., D. P. H. (Eng). Atlanta, S. J. Pridgen Co., 1930. Pp. 228. Illus.

This book presumes to treat of the subject from the historical, epidemiological, etiological, entomological, clinical, and preventive aspects. Any author who attempts such a comprehensive compendium on a subject like malaria at the present day is indeed very ambitious and assumes the position of an authority on all these phases of the question.

A careful perusal of this handbook fails to reveal any justification for its publication. The book is filled with technical any typographical errors which in many instances are so serious as to constitute unjustifiable misinformation. Thus, for example, the discovery of the life cycle of avian malaria by Sir Ronald Ross is placed in the year 1908, ten years after the actual discovery, and the species Plasmodium vivax is attributed to "Gram and Faletti" instead of "Grassi and Faletti." The mother sex cells of the malaria parasite are referred to on certain pages as "gametes" and on other pages as "gametocytes." The footnote which should appear at the bottom of page 8 is found at the bottom of page 12. The ring stage in quartan malaria is stated to be larger than the similar stage in tertian malaria, whereas the reverse is the case. Furthermore, the author states that there is "no discoloration or change in the size of the erythrocyte" infected with the quartan parasite, whereas the cell is frequently shrunken and a dusky red or slate color. On page 22, in an enumeration of the stages of the aestivo-autumnal parasite (Plasmodium falciparum), no mention is made of the fact that these stages do not usually occur in the peripheral blood, although on page 31, seemingly as an afterthought, this statement is made. On page 31 one is given the impression that all of the sporozoites, after bursting out of the sporocyst on the body cavity side of the mosquito's stomach, migrate by some tactic response towards the salivary glands, whereas it is

the commonly accepted view that only those which reach these glands by a trial and error process are successful in completing their life cycle. On page 36, figure 13, the labrum-epipharynx is labeled "maxillae." Provincialisms of speech such as "divides up" (page 21), "it suffers to some degree in the carrying out" (page 63), and "averages out" (page 66), might be enumerated indefinitely.

The monograph is printed on good paper and the typography is fairly pleasing to the eye. Wide margins and a series of blank pages in the back (pages 145-228) are provided for marginal notes by the physician and for additional information which may develop from time to time. A bibliography which is altogether too short and unbalanced is provided. The illustrations are more or less diagrammatic and in most instances are fairly accurate. On the whole the reviewer sees no reason why this book should be placed in the library of any physician.

ERNEST CARROLL FAUST, Ph. D.

Disease and the Man, by George Draper, M. D., New York, The Macmillan Co., 1930. Pl. pp. 270.

This is an extended study of the work of the author embodied in his book on the Human Constitution and is the result of the great activity of the Constitution Clinic at the Presbyterian Hospital in New York. The work is most illuminating and interesting and presents an aspect of disease and its relation to man that is novel but apparently sound to the general physician. It is worthy of attention by all interested in this vital subject and will more than repay the time spent in its perusal.

I. L. ROBBINS, M. D.

The Bacteriophage and its Clinical Applications, by F. d'Herelle. Springfield, Ill., Charles C. Thomas, 1930. Pp. 254.

The Bacteriophage, from a survey of the literature, is to be accorded a definite and probably important place in bacteriology, goes without saying. The author is a pioneer and in all likelihood the original discovery and investigator of the phenomenon. Those who read the book will have the last word on a subject that the author prophesies will revolutionize the study of bacteriology. The internist can only say that from the aspect of therapy, both accomplished and for the bright promise for the future, the subject is one to intrigue the hope and imagination as a great boon to therapy. Regardless of the attitude pro and con, the book which is a resume of the whole subject to date should be read.

I. L. ROBBINS, M. D.

Gonorrhea and Kindred Affections, by Geo. R. Livermore, M. D., and Edw. A. Schumann, M. D., New York, D. Appleton & Co., 1929. Pp. 257, Illus.

This very concise yet complete treatise on the gonococcus and its pathology in both female and male is a valuable volume in any medical library.

Discussions of anatomy of the lower urinary tract is very complete, well illustrated with cuts of the well-known complications of Neisser's cocci, with complete suggestions as to the author's treatment of each condition.

The authors have discussed fully urethral infections with treatment of early and late stages; proof of cure, all complications such as balanitis, the phimoses, periurethral abscess, prostatitis, seminal vesciculitis, epididymitis, and stricture of the urethra as to type, character, and treatment, both surgical and non surgical.

Metastatic gonorrhea is briefly mentioned.

About two hundred pages are devoted to gonorrhea in the female with careful consideration of various sites of pathology in women. Acute urethritis, vulvitis, bartholinitis, condylomota acuminata, cervicitis, both acute and chronic, and salpingitis.

The section on gonorrhea in pregnancy is especially complete with methods of proceedure in each stage of pregnancy and puerperium.

The infectious granulomata is described carefully and further exemplified with sixteen photographic illustrations.

The authors have prepared a volume avoiding bulk and excess reading material, however, nothing of value on the subject of gonorrhea has been omitted. It may be considered a practical, conservative, yet complete book on gonorrhea in both sexes.

R. M. WILLOUGHBY, M. D.

The Neuroses, by Israel S. Wechsler, M. D. Philadelphia, W. B. Saunders Company, 1929. Pp. 330.

A serious publication of 330 pages, well written and easily readible.

The author is somewhat individualistic in his interpretations which are definitely psychoanalytic in content. A well arranged introduction to the history is given following in sequence the mental mechanism, etiology of the neuroses, classification of the same with clinical manifestations of them. Then follows a diagnosis, course in prognosis with a chapter dealing with the treatment of the neuroses, each bespeaking the thoroughness of the author.

The appendix, a most necessary part of a publication of this sort, deals with the approach of the patient and gives in detail an anamnesis which is in itself necessary to obtain a complete and intelligent history from a neuropsychiatric case. This form of obtaining history may well be read by practitioners in general inasmuch as so few realize the necessity of considering the psychic as well as the physical of the individual when summing up their conclusions and handling a case.

This volume can be used as a companion to Dr. Wechsler's text book of clinical neurology. A copy should be in the libraries of every medical school and medical society. General Hospitals would do well to add this to their files and needless to say, the Neuro-Psychiatrists should likewise have a volume to add to their own personal library.

WALTER J. OTIS, M. D.

Venereal Diseases, Their Prevention, Symptoms and Treatment, by Hugh Wansey Bayly, M. C. 4th Amer. ed. Philadelphia, F. A. Davis Co., 1930. Pl. Illus. Pp. 242.

The subject could not be covered more thoroughly with the amount of space consumed.

MONROE WOLF, M. D.

Physical Therapeutic Technic, by Frank Butler Granger, A. B., M. D.; with a foreward by William D. McFee, M. D. Philadelphia, W. B. Saunders Co,. 1929. Illus. Pp. 417.

This book is very well written and should be of value to anyone making use of, or who is anyway interested in this subject.

The author touches lightly upon electrophysics, and physiological effects. The detailed and clear way in which he describes the various means of physical therapy, their use and effects upon the patient is very commendable. In the last portion of the book, the various diseases in which these agents are of use are described with a good outline of therapy.

The impressive thing in the book is that many physical agents must be used on the same patient, and in proper sequence.

The book is very instructive and should be of great service.

LUCIEN A. FORTIER, M. D.

Symptoms of Visceral Disease, a study of the Vegetative Nervous System in Its Relationship to Clinical Medicine, by Francis Marion Pottenger, A. M., M. D., LL. D., F. A. C. P. 4th ed. St. Louis, C. V. Mosby Company, 1930. Pp. 426.

A new edition of an interesting and stimulating book. The aim as set forth in the preface of the fourth edition, is to discuss the newer physiologic principles involved in the study of visceral nuerology and to correlate them in such a manner as to make them readily applicable to clinical problems. A new chapter on pharmacologic and clinical tests for sympathiocotonia and parasympathicotonia has been added.

I. I. LEMANN, M. D.

PUBLICATIONS RECEIVED

Lea & Febiger, Philadelphia: Diseases of the Nose, Throat and Ear, by William Lincoln Ballenger, M. D., F. A. C. S. Affections of the Eye in General Practice, by R. Lindsay Rea, B. Sc., M. D., M. Ch., F. R. C. S.

W. B. Saunders Company, Philadelphia and London: Surgical Diagnosis, edited by Evarts Ambrose Graham, A. B., M. D., Volume III. General Index to Volumes I to III of Graham's Surgical Diagnosis.

Oxford University Press, New York and London: A Text-Book for Midwives, by John S. Fairbairn, M. A., B. M.

F. A. Davis Company, Philadelphia: Allergic Diseases, by Ray M. Balyeat, M. A., M. D., F. A. C. P.

Williams & Wilkins Company, Baltimore: The Mechanism of the Heart and Its Anomalies, by Emile Geraudel.

Paul B. Hoeber, Inc., New York: Diseases of the Urinary Tract in Children, by Edwin Beer, M. D., and Abraham Hyman, M. D.

J. B. Lippincott Company, Philadelphia and London: Manual of Physical and Clinical Diagnosis, by Dr. Otto Seifert and Dr. Friedrich Mueller.

G. P. Putnam's Sons, New York: Nursing and Diseases of Sick Children, edited by Alan Moncrieff, M. D., B. S., M. R. C. P.

Richard G. Badger, Boston: The Basis of Epilepsy, by Edward A. Tracy, M. D.

Twenty-Third Annual Conference of the American Association of Medical Milk Commissions, Inc., Montreal, Canada.